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CONTINENTAL MAY ENLARGE.

Officials of the Continental Packing Co., at Bloomington, Ill., which already has a big hog-killing capacity, are considering the plans for an extensive enlargement of the plant.

NEW BUTCHERS' SUPPLY CO.

The Toledo Butchers' Supply Company, capitalized at \$25,000, has been incorporated at Toledo, O., by Vine D. Sisson, William H. Sweet, Ira G. Winegar, Frank A. Merickel and F. D. Hegmaster. This company will deal in tools, shop fixtures and other supplies required by meat dealers.

ARMOUR PROGRESS AT SIOUX CITY.

Killing operations in a part of the new Armour plant at Sioux City are expected to begin early next month. This will not interfere with the completion of construction work in other departments, and Superintendent Cunningham expects to have over 1,000 men at work in both departments by that time.

A PITTSBURG CONSOLIDATION.

Reports from Pittsburg are to the effect that a consolidation under one management of the Pittsburg Packing & Provision Company and the Pittsburg Union Stock Yards Company is impending. The two companies are owned by the same interests, but it is understood the connection will become even closer hereafter.

OHIO FURNISHED CORN-FED MEATS.

Ohio has been killing too many of her stock or selling them to somebody else for slaughter. The result is that Ohio has fewer livestock than she used to have. The State has 95,000 sheep, 18,000 hogs and about 50,000 cattle less than two years ago. The latest census of livestock in Ohio shows that there are 2,033,000 sheep, 1,536,000 hogs and 1,404,000 cattle in the State. Ohio has helped to supply the increased demand for export cattle and the demand for corn-fed pork products. Considering this strain the livestock census of the State makes a good showing. It is also indicative of the general state of the hog and cattle supply for abattoir purposes this year.

BEEF REPORT WILL BE READY

According to information from Washington neither the meat strike nor the election campaign have put a stop to the investigation of the meat industry now being conducted by the Department of Commerce and Labor by direction of Congress. The strike hampered the work of the agents of the Bureau of Corporations somewhat, but they have since made up for lost time. Meanwhile other agents have looked into the livestock and retail butchers' end of the question, and added their information to the general fund.

"When we are through the report on the beef and packing industry of the United States will be the most complete document of the kind in existence," says Commissioner

of Corporations James A. Garfield. "We will give all the facts about beef from the range to the retail dealer."

As the investigation is being conducted under a resolution adopted by Congress, none of the facts developed can be given out until the report is in the hands of Congress.

The report will be submitted to Secretary Metcalf by Commissioner Garfield, and by the Secretary to President Roosevelt, who in turn will send it to Congress.

"We are getting along very fast," said Commissioner Garfield, "now that the packinghouse strike has come to an end. Our men are at work at all points, and when Congress meets in December the report will be waiting for it."

TO TREBLE CAPACITY AT KANSAS CITY

The Schwarzschild & Sulzberger Company will treble the capacity of its plant at Kansas City for the killing of hogs and the handling of hog products. Plans for this very extensive enlargement of the Kansas City plant are now under consideration, and the construction department will be given orders to go ahead with the work as soon as the full details of the plan are decided.

Constructing Engineer Levy of the S. & S. Company has been in New York for several weeks in consultation with the chief officials of the concern upon these plans. They will be completed in a few days.

Kansas City has within the past few months grown of especial importance as a packing centre. Its advantages have become more clearly evident, and the output in all lines of meat products has notably increased. All the big packers have given this point closer consideration, with the result

that much enlargement of plants is either under way or in contemplation. Kansas City has advantages in the way of rate differentials and other transportation facilities which appear to give it the "bulge" over some other centres just now, and the packers are taking advantage of the fact.

The S. & S. plant at Kansas City is already a very extensive one. It has always been one of the productive mainstays of the concern. Recently, however, the company's greatly increased business in sections tributary to that market have made greater facilities necessary. The hog killing capacity is at present greater than the facilities to care for the product. The enlargement will not only absorb the full killing capacity, but the latter will also be enlarged. The new capacity will be approximately from 25,000 to 30,000 hogs a week, instead of about 10,000, as at present.

OREGON'S NEW PACKING PLANT.

The Columbia Basin Stockyards Company, capitalized at \$500,000, is the title of the new livestock and meat packing enterprise located at Portland, Ore., as a result of the National Livestock Association's agitation for more western packinghouses. The company is backed by Portland capital, and will be managed by J. J. Cahill, formerly at the head of the Western Packing Company, of Denver. A 50-acre plot for yards and plant has

been selected, and it is said that ground will be broken this month. A plant with a killing capacity of 300 cattle, 800 hogs and 500 sheep daily, employing about 500 men, is planned to begin operations within eight months. All packinghouse by-products will be handled, it is said. The officers of the company are: George T. Myers, president; J. J. Cahill, vice-president and general manager; P. L. Willis, secretary; George W. Bates, treasurer.

DECLINING PRICES FOR COTTONSEED OIL

There has been a marked increase in the trading in cotton seed oil for the week, as encouraged by larger productions and declining prices. The mills are getting freer supplies of seed, prices for which are easing up, and they are making more of an effort to sell the crude oil. Moreover, there has been a good deal of a pressure to sell the refined oil at the seaboard markets. Fully 25,000 barrels of refined oil have been traded in in the New York market for the week, and the mills, as covering those in the Southeast, the valley and Texas have placed fully 150 tanks of crude. The pressure of these offerings brought about lower prices by one cent per gallon for the crude oil at the mills and of 2½¢. for the refined in New York.

There has been some little export business in New York, reaching from 13,000 to 15,000 barrels in the refined oil. But the export interest has not been in all inquiries. The mills sold most of their crude oil offerings to the refineries, and in part as against the sales making of refined oil.

There is a belief that seed prices will come down sufficiently in consideration of the rather large cotton crop, to permit the largest oil production yet had. Nevertheless that much more of a supply of the oil is likely to be needed this year, especially in foreign markets, if prices for it are kept upon a basis for competition with the other seed and other soap material offerings of Europe. It is known that the olive crop of Europe is a short one and that more than an ordinary supply of cottonseed oil will be needed by some of the Mediterranean and other foreign sources of consumption. But as concerns supplies upon foreign markets of sesame and arichides oils for the season, it will be several weeks yet before clear ideas can be had concerning them. Just now the linseed oil and some other soap oils are declining in price upon the United Kingdom and continental markets, and this tends to some indifference upon the part of Europe in buying the cotton oil in this country. However, a larger business has been done in it this week than at any other time lately.

EXPORTS FOR SEPTEMBER

The exports of livestock, meats and provisions from the United States for the month of September, 1904, and for the year to date, compared with those of the previous year, as compiled by the Bureau of Statistics, United States Department of Agriculture, are as follows:

Cattle.—September, 1903, 36,935 head, value, \$2,808,224; September, 1904, 42,282, value, \$2,968,419. For nine months ending September, 1903, 339,804 head, value, \$26,652,860; same period, 1904, 404,763 head, value, \$30,248,479.

Hogs.—September, 1903, 149 head, value, \$1,396; September, 1904, 134 head, value, \$2,339. For nine months ending September, 1903, 2,554 head, value, \$26,176; same period 1904, 2,712 head, value, \$25,623.

Sheep.—September, 1903, 15,992 head, value, \$89,212; September, 1904, 22,999 head, value, \$144,912. For nine months ending September, 1903, 139,969 head, value, \$838,747; same period, 1904, 260,731 head, value, \$1,662,680.

Canned Beef.—September, 1903, 5,483,196 lbs., value, \$548,846; September, 1904, 2,600,896 lbs., value, \$263,409. For nine months ending September, 1903, 45,335,729 lbs., value, \$4,610,001; same period, 1904, 32,613,699 lbs., value, \$3,292,757.

Fresh Beef.—September, 1903, 24,513,039 lbs., value, \$2,190,916; September, 1904, 19,300,330 lbs., value, \$1,797,903. For nine months ending September, 1903, 221,135,401, value, \$20,160,253; same period, 1904, 201,048,236 lbs., value, \$18,390,319.

Salted, pickled and other cured beef.—September, 1903, 4,291,958 lbs., value, \$242,942; September, 1904, 3,230,291 lbs., value, \$161,179. For nine months ending September 1903, 44,806,295 lbs., value, \$2,940,964; same period, 1904, 39,267,289 lbs., value, \$2,150,566.

Tallow.—September, 1903, 8,193,476 lbs., value, \$408,321; September, 1904, 4,334,723 lbs., value, \$217,728. For nine months ending September, 1903, 2,620,204 lbs., value,

\$2,267,573; same period, 1904, 43,941,897 lbs., value, \$2,121,422.

Bacon.—September, 1903, 25,629,210 lbs., value, \$2,507,844; September, 1904, 21,919,421 lbs., value, \$2,244,594. For nine months ending September, 1903, 153,279,546 lbs., value, \$15,810,343; same period, 1904, 184,319,804 lbs., value, \$18,034,217.

Hams.—September, 1903, 14,199,306 lbs., value, \$1,696,868; September, 1904, 12,717,417 lbs., value, \$1,439,152. For nine months ending September, 1903, 150,897,134 lbs., value, \$18,014,063; same period, 1904, 133,916,680 lbs., value, \$14,818,851.

Fresh Salted and Pickled Pork.—September, 1903, 9,159,058 lbs., value, \$808,393; September, 1904, 7,950,999 lbs., value, \$646,821. For nine months ending September, 1903, 75,232,033 lbs., value, \$7,433,731; same period, 1904, 75,912,481 lbs., value, \$6,153,863.

Lard.—September, 1903, 43,099,779 lbs., value, \$3,910,216; September, 1904, 53,498,614 lbs., value, \$4,170,718. For nine months ending September, 1903, 359,360,926 lbs., value, \$35,483,586; same period, 1904, 399,047,018, value, \$31,420,169.

Oleo Oil.—September, 1903, 12,176,597 lbs., value, \$985,884; September, 1904, 8,882,793 lbs., value, \$700,197. For nine months ending September, 1903, 108,370,066 lbs., value, \$9,599,985; same period, 1904, 121,794,341 lbs., value, \$9,736,144.

Oleomargarine.—September, 1903, 648,316 lbs., value, \$59,235; September, 1904, 367,640 lbs., value, \$32,889. For nine months ending September, 1903, 6,114,775 lbs., value, \$613,507; same period, 1904, 5,147,695 lbs., value, \$494,189.

Butter.—September, 1903, 502,369 lbs., value, \$85,097; September, 1904, 1,543,815 lbs., value, \$216,416. For nine months ending September, 1903, 6,271,539 lbs., value, \$1,058,699; same period, 1904, 10,003,677 lbs., value, \$1,523,174.

Total Cattle, Hogs, Sheep.—September, 1903, value, \$2,898,832; September, 1904,

\$3,115,670. For nine months ending September, 1903, value, \$27,517,783; same period, 1904, value, \$31,936,782.

Total Provisions.—September, 1903, value, \$13,676,064; September, 1904, value, \$11,987,872. For nine months ending September, 1903, value, \$119,781,730; same period, 1904, value, \$109,372,616.

PELTS AND CHAMOIS LEATHER.

There are but six chamois concerns in the United States which turn sheepskins into that form of leather product. The importers of pickled pelts say that the pelt of the American sheep is not fit for the making of chamois skins. It will be hard to convince the American sheep grower of that fact. It is not stated why such is the case.

The claim is that the value of the output is due more to the nature of the skin itself than to the process by which the pelt is turned into the leather. In the same breath the American factories say that French, German and English sheep are very fine chamois pelt furnishers. The English also use the Australian pelt. It would thus seem that America is the only place where a sheep is grown that will not produce a proper pelt.

Pickling is not only a process for taking the wool from the pelt, but it also cures the skin, which is also curried and all of the offal removed. Pickling is also a tanner's process for making the pelt take the coloring pigment more evenly. There are fourteen processes finished before the skin goes to the vat for its final soaks. All of these processes are done in Europe by cheap labor. The item of freight is also cut more than in half.

The point, though, is that American pelts will not make chamois. Then the tanner of pelts has no competition from that source. The suspicion is that he is not telling the truth.

WANTED AND FOR SALE.

This department may be found on page 48. Look it up.

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WILEY'S BORAX TESTS SCORED

Discussion and criticism of the food preservative tests conducted by Chief Chemist Wiley of the United States Department of Agriculture have been suspended in this country pending the publication by Dr. Wiley of the full detailed reports of his experiments. The borax test is the only one on which a preliminary report has been made public. This report, published in *The National Provisioner* in June, is to be followed later by the complete publication of all data connected with the borax investigations.

Interest in Dr. Wiley's borax report has been widespread abroad, and food authorities and others, particularly in Germany, have commented at length upon various phases of Dr. Wiley's synopsis of his borax work, as reported in *The National Provisioner*. The most recent is an exhaustive scientific review of the borax report in the *Deutsche Nahrungsmittel-Rundschau* (German Food Review), an authority in the Continental food world.

The reviewer analyzes Dr. Wiley's experiments on the effect of borax on the human system, and finds cause for serious criticism of the methods used. The conclusion is reached that Dr. Wiley's way of feeding borax to his patients was not at all comparable with the manner in which borax enters into the daily food ration of the public, and that the results announced are therefore by no means conclusive evidence of the effect of borax as a food preservative on the human system.

The review begins with a synopsis of the plan used by Dr. Wiley in all his food tests, the objects and standpoint of his experiments, the methods of conducting his "food classes," and the manner of observing results. The German critic continues:

German View of the Tests.

Boron was selected as the first preservative, in the form of borax and boric acid. In the administration of the preservative small quantities were first given, approximately as much as would be consumed in eating foods preserved with borax, such as butter and meat.

These quantities were progressively increased for the purpose of reaching, if possible, the limit of toleration of the preservative by each individual. For each variation of the quantity given a separate study of the digestive processes as influenced by the preservative was made.

During the first part of the experiments here described, the borax or boric acid was mixed with the butter. In later periods of the study it was deemed advisable, for many reasons, to administer the preservative in capsules, on the correct supposition that the gelatinous envelope would quickly dissolve in the stomach, and on the further supposition that by the peristaltic action of the stomach the contents of the capsule would be mixed with that of the stomach.

This second hypothesis is in no way to be accepted *a priori* as correct, as the process of mixing would doubtless go on gradually, and there is every probability that the highly concentrated boron compound, on issuing from the gelatine capsule, is capable of first exercising powerful local effects on the parts of the inner membranes of the stomach which

are nearest to it. The occurrence of such effects would naturally find an expression in the further physiological and chemical results of the experiments.

Remains to Be Proved.

The use of borax and boric acid as food preservatives in the ordinary way absolutely precludes such effects of most highly concentrated solutions on the inner membranes of the stomach.

The correctness of Dr. Wiley's supposition that through the peristaltic action of the stomach the contents of the latter would be mixed with the preservative introduced, to the same extent as when the preservative is already present in and uniformly distributed throughout the food before consumption, remains to be proved. Until such proof is forthcoming, it must be assumed that the dry preservative reaching the contents of the stomach and present therein in most highly concentrated form, will first act as a highly concentrated solution—and possibly mechanically before that—on the sides of the stomach, being then gradually uniformly mixed with the contents of the stomach through the peristaltic motion of the latter. Observations made with medicines in gelatine capsules, which are so widely used, do not disprove this.

Tainted from the Outset.

The whole of Dr. Wiley's experiments are thus unfortunately tainted from the outset, owing to the method used by him of administering the preservatives, with a source of error, the bearing and import of which in regard to the results of the experiments are entirely unknown quantities.

Dr. Wiley gives in his report detailed particulars as to the medical supervision of the subjects, examinations of the blood, determinations of temperature and of body weights. He states that in several cases the subjects suffered severely from colds, influenza and grippe to such an extent as often to lose the value of their services during a whole period.

Dr. Wiley then describes in detail the many difficulties to be overcome in carrying on the experiments, as well as the effects of regular habits of life and moral factors. What he says as to the effects of regular habits of life is so important that it must be quoted verbatim:

"Another important factor must be considered in the interpretation of the data which have been obtained in these experiments, namely, the effect of regular habits of living, uniform quantity of diet and general control of the appetite upon the physical well being of the subject. It is usually considered by physiologists and physicians that regular habits of life conduce to health and strength. This theory has been corroborated by the results of the experimental work here detailed. While it is true that in many instances during the progress of the investigation the members of the table were made temporarily ill by the quantities of the preservatives administered, it is, nevertheless, an interesting fact to note that at the end of the year after the final 'after period' had been passed, they appeared to be, and declared themselves to be, in better physical condition than when they entered upon the experimental work seven months before.

"This fact, as has already been stated,

must not be neglected, since it is evident that the tendency toward a good physical state and good health produced by the regular habits of life might counteract the unfavorable tendency of any exhibited preservative, so that at the end of the observation, if the results were judged only by the condition of the subject at that time, they might be pronounced negative or even helpful, whereas in point of fact, the preservative might have produced injurious effects."

So much for Dr. Wiley.

As regards the cases of temporary illness, these were such as where excessive doses of the preservative were given to the subject, such as do not apply in practice.

Dr. Wiley ascribes the increased well-being of the subjects after the experimental period to the regular habits of life they were compelled to lead during that period, the effect of which was to more than counterbalance any injurious effects of the preservatives. If, as Dr. Wiley supposes, these regular habits of life of the subjects during the experimental period are, as a matter of fact, to be taken as determinative factors in deciding the final result of the experiments, then the whole of his experiments, together with their results, would, properly speaking, lose their importance, as this factor is brought in as counterbalancing those effects of the preservatives with which they still had to become acquainted.

One can scarcely help being under the impression that this reasoning of his is an artificial one. According to such arguments it would be possible to attribute the final effects of a beneficial medicine solely to the regular and special manner of life which the particular disease calls for.

Speculative and Theoretical.

Of decisive importance is the fact observed by Dr. Wiley, that the subjects, in spite of their health being threatened temporarily through occasional excessive doses of preservative, were in better health at the close of all the experimental periods extending over seven months than they were before. The restrictions made by him are not capable of in any way altering this final result either.

No one will be able to seriously assert that this final result would have been possible, if the use of preservatives in the quantities and forms used in practice were really injurious to health, as has been affirmed by the opponents to their use on the basis of speculative considerations combined with the theoretical construction of cases.

(To be continued.)

PATTILLO IS GENERAL MANAGER.

R. S. Pattillo has been elected vice-president and general manager of the Georgia Cotton Oil Company, the position held by the late W. J. Montgomery. Up to the time of Mr. Montgomery's death, Mr. Pattillo was second vice-president of the company, with headquarters in Macon, and immediately after the occurrence of that tragic event was ordered by the head office in New York to take charge of the general offices in Atlanta. His recent promotion to the important position of vice-president and general manager is the result of a long and honorable connection with the company, extending over a period of 15 years.

See page 48 for business chances.

FIRE PROTECTION FOR MILLS

The necessity for adequate and improved methods of fire protection for cotton oil mills is a question that is receiving widespread consideration. Cotton oil men have lately been renewing the agitation for a mutual insurance plan in their State and national associations. The insurance question is a vexing one, and the reduction of fire risks is the aim of every mill builder and operator. In a recent review of the matter in Insurance Engineering from the standpoint of an insurance engineer, Charles H. Fischer says:

The hazards incident to the crushing of cottonseed begin in the seed house, where the seed is cleaned preparatory to sending it to the linters. About the cleaning machinery there is always a large amount of lint flying on walls, ceilings and bearings; considerable grabots (which consists of seed cotton and dried cotton balls) caught from the shaker also accumulate. An inferior system of seed cleaning makes the amount of lint fly in seed house excessive. The accumulation of lint fly becomes alarming when the seed is removed from a cotton gin by a blower system, in which event a very large amount of lint fly comes over with the seed and accumulates on the side walls to a thickness of from 2 to 6 inches and hangs in festoons from the ceiling, one to 2 feet deep. This practice of receiving seed from a gin should be prohibited, in so far as it is impossible to keep lint fly brushed down.

The accumulation of lint fly from the cleaning machinery should be brushed down during each watch, sacked and removed. The grabots should be gathered and removed also. As a general thing the oil mill superintendent will allow the storage of a large amount of both lint fly and grabots to accumulate in the seed house, a risky practice on account of the rapidity with which this refuse burns. The bearings of the machinery in this location should receive close attention, as they are generally full of lint and frequently run hot.

It is a very common occurrence for the vertical conveyors which elevate the seed to choke and cause the belts to slip around the pulleys, and friction caused thereby is apt to set up enough heat to start belt burning. By making the strut-boards of these conveyors inclined and by feeding the conveyor no more seed than it can conveniently convey, this choking feature can be overcome.

To Perfect Seed Cleaning.

The process of delinting the seed introduces a flash fire hazard brought about by foreign substances, such as nails and matches, coming in contact with the revolving saws. This can be eliminated only by perfecting the system of seed cleaning. There is often attached to the linters a series of magnets for removing nails and bits of iron or steel. These should be installed so that no live points are exposed and no screw connection made. The process of pressing the line which comes from the linters carries with it the small friction hazard in a screw press, and the accumulation of lint in rolls in the linter room. When lint press is located and cut off properly, this is of little importance.

The location of the next hazard in the process is at the huller, caused by foreign substances getting in the machine. This machine should be well set and in a room where there is no accumulation of lint fly.

The question of the installation of the cookers should have some attention. In many of the old mills the cookers are on wooden supports; and being heated to a temperature of about 250 deg. Fahr., a hazard similar to the steampipe is introduced. The mill managers are recognizing this fact, and are rapidly changing the cooker supports. In the recent past a theory has been advanced regarding the hazard in the hull house. When

cottonseed hulls are saturated with water, rapid decomposition sets in, during which process a gas is set free which, a number of authorities claim, ignites freely.

The only other hazard which presents itself is that of the boilers. This can be summed up as depending upon brick setting, exposure of beams or joists by the breaching or stack, care exercised in preventing accumulations on top of boilers, particularly the dust which so many underwriters claim will smoulder and hold fire like punk. The question of back draughts should not be lost sight of, although it is practically uncontrollable. When crude oil is used, there is an increased hazard in the boiler room, particularly when equipment is not well installed.

Fire Protection.

The problem of fire protection in an oil mill is of vital importance, and should receive careful attention. In so many plants the protection is installed simply with the view of getting a reduced rate, the idea of the actual purpose of the protection being almost forgotten. This is particularly true of automatic sprinklers. The fact that an oil mill is operated not more than four or five months in the year indicates at once that the fire-fighting apparatus is apt to be neglected.

Generally the source of water is reliable, as much water is needed about the plant, and this question is carefully considered before deciding on the location of a mill. The real problem confronting us here is to make the water available for fire purposes. In so many cases a small elevated tank of 5,000 gallons capacity is installed and not properly elevated above the mill roof. Frequently this small supply is made available for boiler feed purposes or is used for washing boilers out during each weekly shut-down. It is self-evident what little dependence can be put in such a supply, particularly when it is to be utilized as supply for automatic sprinklers as well as hydrants.

A glance at most all standard requirements for oil mills will show that a good deal of value is attached to the fire pump. In any plant where the operation is practically continuous through the year, the value of a fire pump is large. It is evident that the value of a fire pump in a cottonseed oil mill is small on account of the short period of actual operation, ranging from four

to five months. During the long idle period the boilers are seldom fired in the majority of mills. It is easy to see of what little value such a piece of apparatus is during this long period of idle season.

The degree of protection afforded by automatic sprinklers in this class of risk is small unless same are installed exceptionally well and great care is exercised in the maintenance of equipment. It is safe to say that almost all mill managers and superintendents regard the installation of automatic sprinklers as a very ordinary piece of pipe work that most any one about the mill can execute. The result has been a large number of very poor equipments, that it would be wiser to remove than endeavor to remodel. In the press and meal rooms the sprinklers are generally found coated with meal, or corroded; hence, action of sprinklers impeded. In almost all plants the protection of confined spaces, such as under linters, flues and hoppers, conveyor boxes and heads, meal screens, etc., is overlooked.

In this connection it might be well to state that at the close of the operating season it is customary about an oil mill to thoroughly clean everything. When the mill hands get around to the sprinkler equipment, they generally remove all heads and put them to soak; sometimes two or three days will elapse before heads are replaced; sometimes that many weeks. These points will indicate what little value the oil mill manager attaches to the installation and maintenance of automatic sprinklers, which, as is known, decides their whole efficiency.

The question of hydrant protection is of minute importance, and should have more attention, as so much depends upon them. It is proper to state that over 80 per cent. of the mills have thin hydrants of wrought iron, vertical pipe-style, on wrought iron underground, which as is well known corrodes very rapidly and then becomes unreliable. Not more than eight months ago the writer, while testing some hose at pressure of 80 pounds, burst such an underground and crippled the whole system for about twelve hours. It is simply a question of time when all wrought iron pipe will prove defective in places where installed.

A NEW BEEF BREED.

The French have a beef breed of cattle called in that country the Limousin. A man who has made a study of them expresses the belief that these Limousin cattle are better than the Durham breed for beef purposes. He even halts at excepting any other beef breeds as being their equal.

The points claimed for the French beef bovine are as follows: Size, easy feeders and fast weight producers. Those are the most essential as to bulk and cost. An equal essential is strength of constitution in variable climates. The trade is at all times hunting a structural model which grows easily and fast, is hardy, and which fleshens where the better prime beef is needed. If the Limousin will do that better than the Shorthorn, the Durham or other of our beef cattle that strain will be an addition to our abattoir herds. They might be crossed with our herds. The trouble with a cross, however, is the instability of the standard. The body has a tendency to go back to one or the other of the crossed strains. The crossing process has to be kept up.

The Limousin cattle of France are not as fine grazers as are our herds. They are more used to the feed lot than to roughing it for a couple of years while putting on bone growth. There is enough in the question for the Agricultural Experiment Stations to test it. The trade can take up the process later on if advisable.

THE
PROFITS
of the
PACKINGHOUSE
are in the
BY-PRODUCTS
and their economical handling
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COMIC OPERA FOOD TRIALS.

Pure Food Commissioner Warren, of Pennsylvania is making elaborate preparations for the trial next week in the State courts of those meat dealers who have been charged with the use of sulphite of sodium in the preservation of meats which they have offered for sale. The men, chiefly Philadelphia dealers, have been indicted, and the first case will be tried on Tuesday. There are over 125 indictments in all.

Dr. Warren has arranged, it is said, to cook this "doctored" beef in court, to have it eaten and to let the jury watch the results. If the details published of this proposed court performance are correct, this will be a good deal of a comic opera affair for all but the victims to whom the meat is to be fed. The latter, if the doctor "doses" the meat as alleged, will be supposed to wriggle and writhe and do all sorts of "stunts" for the edification and enlightenment of the jurymen. It is added that sodium sulphite will also be administered to animals, and the results observed—presumably in court, also.

It would appear that the "expert testimony" of chemists is coming to be regarded with some suspicion, and that in order to prove his case to a jury Dr. Warren must resort to this eye-witness method of experiment. The doctor is at least to be commended for his energy in pursuing these sulphite users, even though his pursuit of dealers in harmless preservatives and oleomargarine smacks of the persecution of an official zealot out to make a record and a name.

S. & S. BRANCH HOUSE ACTIVITY.

It is a pretty dull week in the regular season that the Schwarzschild & Sulzberger Company does not open a new branch house, or enlarge the facilities at some one of its branches. The new S. & S. branch at Akron, O., was opened this week. It is one of S. & S.'s most modern plants, and Manager Wilhelm has an equipment that is second to none. The remodelled branch in Boerum street, Brooklyn, opens Monday evening, and is another up-to-date place.

At Savannah, Ga., the S. & S. house is now fully opened under Manager Vinson's direction, and is said to be a plant that is a credit to the South as well as to the city. At Birmingham, Ala., Manager Smith opened the new house on October 10, with facilities for handling Southern products which give him every advantage to get and hold trade. The Eastern Beef & Provision Company, the S. & S. Company's consignment agents at Bangor, Me., are reported as having acquired remarkable popularity for a new enterprise, and have cut a wide swath in the northern Maine field.

The same story comes from the S. & S. branches, and General Sales Manager Howard wears a broad smile.

SWIFT GETS ARMY CONTRACT.

Contracts for 47,000 pounds of dry salt meats for the use of garrisons in the department of the Missouri, United States Army, were recently let to Swift & Company.

REDUCE THE EXPENSE OF CONVEYING HAIR

BY USING A

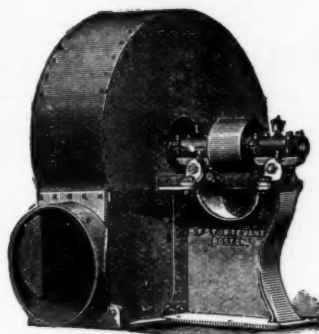
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B.F. STURTEVANT CO.

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General Office and Works,

HYDE PARK, MASS.

New York,
Philadelphia,Chicago,
London.

135

WHEELS WITHIN WHEELS.

The German imperial authorities are evidently ready, at the demand of agrarian interests, to go to any length or to descend to any petty measure to shut out American meats from German markets. Facts concerning the oppressive and ridiculous German inspection laws and methods are common knowledge. The bulletin of the American Chamber of Commerce at Berlin amusingly refers to the pettiness of the government methods as follows:

The supplementary provisions to the imperial law regulating the inspection of meat have received the Prussian royal sanction. These provisions are supplementary to the executive provisions of the imperial law, which are themselves supplementary to that law; and it is now announced that supplementary provisions to the new supplementary provisions are shortly to be expected. The supplementary provisions just sanctioned are intended to prevent parish veterinary authorities subjecting to second inspection under the Prussian slaughter-house law imported fresh meat that has already been inspected under the imperial law, but may have become spoiled or otherwise noxiously deteriorated since that inspection. This supplementing of supplements shows that legislation is not so simple a science as it seems.

AN AUSTRALIAN TAN BARK.

The United States Department of Agriculture has just issued a bulletin, by David G. Fairchild, agricultural explorer, on the cultivation of the Australian wattle, which will be of interest to tanners. The bark of the Australian black wattle tree has long been in use for tanning purposes. It does not give the leather as fine a bloom as the bark of the American oaks or the acorn cups of the valonia oak, but it tans more quickly

PROPOSALS**OFFICE PURCHASING COMMISSARY.**

U. S. Army, 39 Whitehall street, New York City, N. Y., October 8, 1904.—Sealed proposals for furnishing and delivering subsistence stores in this city for the month of November, 1904, will be received at this office until 11 o'clock A. M. on October 18, 1904, and then opened. Information furnished on application. Envelopes containing bids should be marked, "Proposals for Subsistence Stores opened October 18, 1904," addressed to Major D. L. BRAINARD, Commissary, U. S. A.

and is in good demand for the common grades of leather. Formerly the supply of this tan bark came from the forests of Australia, but within the last five or six years the plantations of Natal have begun to supply a large proportion of the bark, and the writer was informed by residents of that colony that wattle growing is the most profitable plant industry in the country.

This brief presentation of the culture of the wattle tree and the harvesting of the bark for tanning purposes will, it is hoped, by the department, again call the attention of American tanners to this possible source of tanning material. As Mr. Fairchild points out, considerable of this bark is already being produced in South Africa, and, although it is probable that few parts of the United States proper are sufficiently free from frost to make the culture of the wattle tree profitable, it is successfully grown in the Hawaiian Islands, where it is regarded as a promising industry. A tract of five acres of thirteen-year-old trees at the Hawaii Experiment Station has been under experiment for a number of years, and a bulletin describing the growth of the trees and the market value of the products is now in preparation.

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Just What You Want!

Page 48

TRADE GLEANINGS

The Chicago Packing and Provision Company, of Chicago, Ill., has dissolved.

The Virginia-Carolina Chemical Company will build a \$300,000 plant at Shreveport, La.

The Toledo Butchers' Supply Company, of Toledo, has been incorporated with \$25,000 capital.

The Raser Tanning Company, of Ashtabula, O., has increased its capital from \$20,000 to \$100,000.

The Alexandria Fertilizer and Chemical Company at Alexandria, D. C., will greatly enlarge its plant in the near future.

Armour & Company are negotiating for land at Scranton, Pa., on which to build a new branch plant, at a cost of \$50,000.

Fire in the smokehouse of the Armour Packing Company, at Beaumont, Tex., caused damage of \$3,500. Repairs are under way.

Gustaf Schehow, of Milwaukee, Wis., will build a sausage making plant at Garfield and Ninth streets, that city, at a cost of about \$4,000.

The smokehouse of Armour & Company's branch at Oil City, Pa., was damaged by fire recently and the meat destroyed. The plant is being repaired.

Southern Salt Company, of Grand Saline, Tex., has been incorporated by A. Wilderspin, T. B. Martin and J. E. Persons. The capital stock is \$20,000.

The Howard Sole Leather Tannery Company at Corry, Pa., will enlarge its plant. It has recently paid off a mortgage of \$248,000, and is in a prosperous condition.

Plans have been filed for the new 7 story building of the Larkin Soap Company, at Carroll and Larkin streets, Buffalo, N. Y. The estimated cost is put at \$300,000.

American Poultry and Egg Company, of New York City, with \$25,000 capital, has been incorporated by Herbert Story and E. Sunner, of New York, and E. B. Friske, of Brooklyn.

Fred. Mayer Company, of New York City, has been incorporated with \$30,000 to make soaps and toilet articles. The directors are Fred. Mayer, Samuel Mayer and W. P. Plato, all of New York City.

Officials of Swift & Company, and Libby, McNeill & Libby have been looking over Seattle, Wash., and it is stated they may erect a packing plant there with a capacity of 10,000 head or more per day.

At the annual meeting of the Plankinton Packing Company, of Milwaukee, Wis., the officers were re-elected. William Plankinton is president; W. D. Booth, vice-president, and Joseph Moody, secretary and treasurer.

The city health officer of Bridgeport, Conn., is considering the recommendation that the city provide a slaughter house for use of butchers and prohibit private abattoirs, and action in the matter will be taken at an early date.

The following have been elected officers of the Toledo Oil and Lard Company, of Toledo, O.: President, Karl Mathias; vice-president, F. C. Bishop; secretary and treasurer, George A. Bassett; directors, Karl Mathias, Dr. W. F. McVety, F. C. Bishop, G. A. Bassett, A. O. Stewart, Charles F. Nighwander and Charles Tafelski.

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77 Jackson Boulevard
Rooms 1409-10-11

FOREIGN MEAT TARIFFS

Compiled by Frank H. Hitchcock, Chief, Division of Foreign Markets, U. S. Department of Agriculture.

CHINA.

TARIFF OF 1902, AS AGREED UPON BY CHINA AND THE TREATY POWERS.

Articles imported.	Foreign denominations. Unit of quantity.	Duty. Haikwan taels.	United States equivalents. Unit of quantity.	Duty. Dollars.
Meat:				
Cured—				
Bacon and hams	Ad valorem..	5 per cent.	Ad valorem..	5 per cent.
Beef, corned or pickled, in barrels	Picul.....	0.375	Pound.....	0.003
Dry salted, in boxes or barrels	do.....	.473	do.....	.003
Dry sausage	do.....	.808	do.....	.004
Canned—				
Bacon and ham, sliced—				
In 1/4-pound tins	Dozen tins...	.077	Dozen tins...	.003
In 1-pound tins	do.....	.144	do.....	.004
Pork and beans, plain or with tomato sauce—				
In 1-pound tins	do.....	.040	do.....	.003
In 2-pound tins	do.....	.073	do.....	.004
In 3-pound tins	do.....	.085	do.....	.004
Dried beef, sliced	do.....	.144	do.....	.004
Deviled meat—				
Poultry—				
In 1/4-pound tins	do.....	.042	do.....	.004
In 1/2-pound tins	do.....	.072	do.....	.004
Other—				
In 1/4-pound tins	do.....	.022	do.....	.003
In 1/2-pound tins	do.....	.042	do.....	.004
Tamales of chicken—				
In 1/4-pound tins	do.....	.051	do.....	.003
In 1-pound tins	do.....	.080	do.....	.004
Soup and bouillon—				
In 2-pound tins	do.....	.101	do.....	.005
In 6-pound tins	do.....	.344	do.....	.008
Tongue—				
In 1/4-pound tins	do.....	.098	do.....	.007
In 1-pound tins	do.....	.304	do.....	.010
In 1 1/2-pound tins	do.....	.337	do.....	.010
In 2-pound tins	do.....	.333	do.....	.010
In 2 1/2-pound tins	do.....	.445	do.....	.010
In 3-pound tins	do.....	.515	do.....	.010
In 3 1/2-pound tins	do.....	.545	do.....	.010
Other including game with vegetables or not—				
In 1/4-pound tins	do.....	.052	do.....	.003
In 1/2-pound tins	do.....	.063	do.....	.003
All other	Ad valorem..	5 per cent.	Ad valorem..	5 per cent.
Meat products:				
Lard, pure or compound	Picul.....	.500	Pound.....	.003
Oleomargarine (imitation butter) in tins jars or kegs	do.....	1.400	do.....	.006
Pork rind	do.....	.500	do.....	.003
Sinews—				
Buffalo or cattle	do.....	.550	do.....	.003
Deer	do.....	.050	do.....	.003
Other	Ad valorem..	5 per cent.	Ad valorem..	5 per cent.

NOTE.—The basis upon which ad valorem duty is levied is the market value reduced 12 per cent.

in BY-PRODUCTS for SMALL PACKERS

GET IT OUT WITH THE AID OF THE

\$

EXPERT

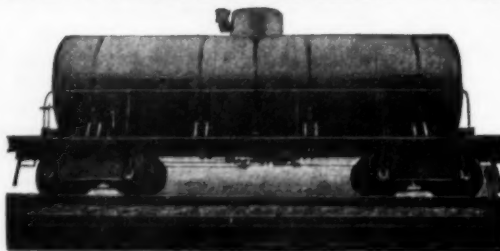
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WARREN, O.

THE HOG INDUSTRY.

Condensed from Bulletin No. 47, Bureau of Animal Industry, U. S. Dept. of Agriculture,
By George M. Rommell, B.S.A., Expert in Animal Husbandry.

(Continued.)

Influence of Breed on the Carcass.

For the sake of convenience the term "slaughter test" is used in this bulletin to include everything from weighings on the floor of a packinghouse to a chemical analysis. Sufficient attention has not been paid to the effect of feed and conditions of management on the carcass, but the present drift of sentiment among workers in animal husbandry points to a more thorough study of the carcass in detail as a means of solving the problems that still confront the student and the feeder. No one can doubt that such investigations will have a high value when applied under feed-lot conditions.

At the close of the last two Iowa experi-

ments most of the hogs were shipped to Chicago and sold on the open market. In both experiments the different breeds had been fed on practically the same rations, and all conditions of feeding and management were similar; so that whatever differences might be found in the carcasses could very properly be ascribed to breed influence.

In the packinghouse where the hogs were killed careful records were kept of the slaughtering, and elaborate reports made of these records. The following table has been arranged from these results. It shows the percentage of dressed weight of each breed and the total and average weights of the heads and viscera for each breed:

Slaughter Tests of Pure Bred Hogs.

Breed.	No. of pigs.	Dressed Meats		—Heads—		Cheek		Leaf	Kidneys	Gullet		
		meat. lbs.	(spices) lbs.	Gross. lbs.	Net. lbs.	meat. lbs.	fat. lbs.					
Berkshire	9	77.90	1.75	96.00	78.00	8.00	8.75	1.12	57.00	5.75	5.50	1.25
	10	78.20	3.00	105.00	85.00	8.00	10.00	2.00	40.00	3.00	12.00	0.50
Average	..	77.04	.25	10.58	8.58	.84	.99	.16	5.11	.46	.92	.09
Tamworth	10	78.40	5.00	115.00	95.00	7.00	8.00	2.00	70.00	5.00	9.50	.50
	4	78.00	1.50	43.75	30.00	3.50	3.50	.75	15.00	3.00	2.50	.50
Average	..	78.40	.46	11.34	9.36	.75	.82	.20	6.07	.57	.86	.07
Chester White	9	78.40	4.00	98.00	75.00	5.00	6.00	2.00	55.00	3.00	9.50	.50
	8	77.50	1.50	78.75	65.00	5.75	6.50	1.50	45.00	4.50	5.25	1.75
Average	..	78.10	.32	10.40	8.24	.68	.74	.21	5.88	.44	.87	.13
Poland China	8	78.20	3.00	75.00	60.00	5.00	6.00	2.00	48.00	5.00	7.00	1.00
	9	79.00	2.50	84.25	70.00	6.00	7.00	1.25	48.00	5.00	6.00	1.50
Average	..	78.62	.32	9.87	7.65	.65	.77	.19	5.65	.59	.76	.15
Duroc Jersey	9	77.10	4.00	100.00	82.00	8.00	6.00	2.00	62.00	3.50	9.00	1.00
	9	77.00	2.12	86.00	70.00	6.25	7.25	2.25	41.00	5.00	6.50	3.50
Average	..	77.05	.34	10.34	8.45	.79	.85	.23	5.73	.48	.86	.25
Yorkshire	9	79.00	4.00	110.00	93.00	8.00	8.00	1.00	50.00	4.33	10.00	1.00
	4	79.00	1.25	42.25	35.00	3.25	3.25	.75	23.00	2.50	2.50	.50
Average	..	79.18	.40	11.71	9.85	.87	.87	.13	5.62	.53	.90	.11

Breed.	Ham fac- ings. lbs.	Plucks. lbs.	Livers. lbs.	Hearts. lbs.	Lungs. lbs.	Blad- ders. lbs.	—Bladders—		Bladder fat. lbs.	Total weight of guts. lbs.	Gut fat. lbs.	Caul and ruffles. lbs.
							Gross. lbs.	Net. lbs.				
Berkshire	4.00	84.00	32.00	6.00	15.00	...	3.00	1.00	0.50	203.00	24.00	28.00
	...	50.50	25.00	5.50	20.00	0.50	...	...	...	218.00	31.00	32.50
Average	...	6.03	3.00	.61	1.84	...	...	...	...	22.26	2.90	3.08
Tamworth	4.00	80.00	26.00	6.00	18.00	...	3.00	1.00	.50	200.00	30.00	25.00
	...	24.75	11.00	2.75	11.00	.50	...	...	...	91.00	13.00	14.50
Average	...	6.05	2.64	.63	2.70	...	...	...	...	20.80	3.07	2.82
Chester White	4.00	80.00	25.00	5.00	10.00	...	2.00	1.00	.50	173.50	30.00	25.00
	...	37.25	19.00	4.25	14.00	1.00	...	...	...	156.00	29.00	24.00
Average	...	5.13	2.59	.54	1.41	...	...	...	...	19.38	3.47	2.88
Poland China	4.00	50.00	27.00	5.00	10.00	...	2.50	.50	.50	128.50	27.00	23.00
	10.50	44.25	27.00	4.75	12.50	1.00	...	...	...	175.00	28.00	18.00
Average	...	5.54	3.18	.57	1.32	...	...	...	...	17.85	3.24	2.41
Duroc Jersey	4.00	55.00	25.00	5.00	15.00	...	2.00	.50	.50	189.00	25.00	29.00
	8.00	48.50	25.50	5.00	13.00	.75	...	...	...	194.00	30.00	28.50
Average	...	5.47	2.80	.56	1.56	...	...	...	...	21.28	3.05	3.20
Yorkshire	4.00	80.00	27.00	4.00	18.00	...	4.00	1.00	.50	104.00	23.00	22.00
	...	25.00	13.00	2.50	9.50	.50	...	...	...	82.00	16.00	12.50
Average	...	6.54	3.08	.50	2.12	...	...	...	...	21.23	3.77	2.65

Breed	—Bung guts.—		Bung-gut fat. lbs.	—Small guts.—		—Stomachs.—		Nutri- tive ratio.	
	Gross. lbs.	Net. lbs.		Gross. lbs.	Net. lbs.	Gross. lbs.	Net. lbs.		
Berkshire	7.00	5.00	10.00	3.00	40.00	25.00	15.00	12.00	1:5.6
	14.00	6.00	...	2.25	34.00	19.00	21.00	14.00	1:7.1
Average	1.11	.58	...	.28	3.90	2.32	1.90	1.37	...
Tamworth	8.00	6.00	10.00	2.00	44.00	31.00	16.00	14.00	1:5.6
	7.50	3.00	...	2.50	12.00	8.00	11.00	7.00	1:7.1
Average	1.11	.64	...	.32	4.00	2.80	1.93	1.50	...
Chester White	6.00	4.00	9.00	1.50	31.00	20.00	15.00	10.00	1:5.3
	10.00	4.00	...	.75	25.00	15.00	15.00	11.00	1:7.1
Average	.98	.47	...	.13	3.30	2.06	1.76	1.24	...
Poland China	5.00	4.00	5.00	3.00	27.00	18.00	10.00	7.00	1:5.7
	15.00	5.00	...	1.75	27.00	17.50	15.50	13.00	1:7.1
Average	1.18	.53	...	.28	3.18	2.09	1.50	1.18	...
Duroc Jersey	8.00	7.00	7.00	3.00	32.00	20.00	18.00	11.00	1:5.6
	14.75	6.75	...	2.25	33.00	22.00	17.00	13.00	1:7.1
Average	1.27	.76	...	.29	3.61	2.33	1.96	1.33	...
Yorkshire	5.00	4.75	10.00	2.50	25.00	18.00	21.00	13.00	1:5.6
	7.00	3.00	...	.50	14.00	8.00	7.00	4.00	1:7.1
Average	.92	.60	...	.23	3.00	2.00	2.15	1.46	...

The average of these tests shows the Yorkshire to be in the lead in dressed weight, the other breeds following in this order: Poland China, Tamworth, Chester White, Duroc Jersey and Berkshire, the variation being from 79.18 per cent. to 77.04 per cent.

Note.—The writer is under obligations to Swift & Company, Chicago, who killed the hogs, for the following explanation of terms used in these slaughter tests that are not self-explanatory:

Heads, gross.—The gross weight of the heads just as cut from the hogs, with tongues and lean meat in.

Heads, net.—The same heads trimmed for tank—tongues, cheek meat, and cheek meat fat taken out.

Cheek meat.—Refers to the lean meat in the cheek of the hog. Scientifically expressed, includes masseter (pterygoideus internus and externus) muscles.

Cheek meat fat.—The fat trimmed off in saving the lean meat.

Ham facings.—Refers to the facing of fat which is taken off the inside of the hams in order to give them a lean appearance and is taken off in all cases where American cut hams are made. Where English long-cut hams are made this facing of fat is left on, accounting for the fact that in some of the tests ham facings are shown; in other tests they are not.

Plucks.—The liver, heart and lungs comprise what is called the pluck. Total weight of the livers, hearts and lungs added should agree with the total weight of the plucks. Some differences in 1897 test, but weights balance approximately in 1898 test.

Bladders, gross.—The weight of the bladders as taken from the hogs filled, more or less, with urine.

Bladders, net.—Weight of the same bladders with the urine pressed out.

Gut fat.—Large intestines washed out.

Caul fat.—Omentum.

Ruffle fat.—Mesentery.

Bung guts, gross.—Floating colon and rectum combined is called the bung gut, and bung guts, gross, is weight before being cleaned.

Bung guts, net.—Same as above, but cleaned.

Paunches, gross.—Weight of stomachs as taken from the hogs.

Paunches, net.—Weight of stomachs cleaned.

Pig bags.—Refers to uteri.

(To be continued.)

TRANSPORTATION THEN AND NOW.

George H. Daniels declares that the St. Louis Fair is ten times as good as any previous world's fair, and is willing to wager a free pass from New York to the Inside Inn that the New York Central offers facilities for reaching St. Louis 1,000 times as good as they were when the Louisiana Purchase was made, and he believes no argument is necessary to convince people of that fact. Let's see: St. Louis never saw a steamboat till 1817, fourteen years after the Purchase; and the first railroad entering the city was the Missouri Pacific, in 1854. A "trek" from New York to the Mound City must have occupied at least five weeks at the time of the purchase.—New York Press.

Swift's Premium Hams and Bacon
Silver Leaf Lard
Swift & Company, U.S.A.



WORTH HUNTING FOR

Fac-simile of advertisement appearing in the October magazines.

THE National Provisioner NEW YORK and CHICAGO . . .

Published by
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(Incorporated Under the Laws of the State of New York.)

DR. J. H. SENNER, . . . President and Editor

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Correspondence on all subjects of practical interest to our readers is cordially invited.

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AFTER THE COLD AIR CARS

The effort of the railroad companies to acquire ownership of the private refrigerator car lines by means of a public agitation through the Interstate Commerce Commission is based upon false grounds and upon motives of greed. The packinghouse may be one business and railroading another. There are other considerations than this bare, abstract disintegration proposition that enter into the question of ownership of such private freight carriers as the refrigerator car.

The packer is a specialist. He studies the nature of his product and the conditions which are necessary to deliver his stuffs in the market in a sanitary condition. The railroad has only the mechanical interest in the business. The packer aims at a perfect car for the particular product. The railroad is more interested in making its old rolling stock go as far as possible. The life of the average cold storage car is six years; eight years at most. The railroads have the guardianship of the public safety in hand. There are too many instances where this trust is carelessly safeguarded, for the reason that

there are too many instances where proper appliances have not been installed—not because such appliances are not in existence, but because they are viewed as a needless expense in view of present equipment and the necessity of squeezing out dividends.

The packinghouse cannot and does not ignore a better appliance. If the public safety is thus lightly passed by the public health could not be dearer. The inferior milk, butter and cheese service of the railroads in various parts of the country illustrates this fact and shows how little disposition there is on the part of the railroads to improve the service they have or to enlarge its efficiency in the present era of economy and dividend squeezing.

Refrigerator cars are of three kinds: For flesh, fruit and dairy produce haulage. Even cured or partly cured products do not take the same kind of car as a strictly fresh carcass. Then, again, poultry requires a varied kind of refrigeration. The packer watches these things and works out these problems. Success in them is vital to his business. The railroads are not interested and would not build and operate packinghouses for purely experimental purposes along these lines; nor would they turn over their systems to the packers for long and costly experiments at the expense of the roads. Such an arrangement would be insufferably inconvenient to both parties. Then, again, the roads would not buy all sorts of plausible patents at the behest of the packers, and try them out before final installation.

These are but a few of the considerations which build up the refrigerator car lines in private hands and which would make the building and ownership of them by the railroads inadvisable, from a public health point of view if from no other. It is alleged that refrigerator car rates are high, and the methods arbitrary. There is no assurance that the freight rate would be lower or less arbitrary if the lines were in the hands of the roads. The roads own the cattle cars and other freight conveyances, yet the freight problem is far from being solved. In fact, rates are up and the service is very unsatisfactory.

The railroads had an even chance and a fairer field for competition with the private line owners for building their own cars. They had the money and the road and the equipment. They have them yet. In spite of these advantages they have avoided the business of building these cars. Whenever they have attempted the job failure has followed. The Canadians tried it with uneven success. The Pennsylvania road is the latest in the field and the result is not flattering. The nature of every product must be known and its action in the distributive market after it

emerges from refrigeration must also be known. Without this knowledge and the adjustment of refrigeration to it the refrigerator car will be a failure.

The food people are in the business to know these things. Now that they have borne the burden of the tests and have acquired their private patents in this field it is proposed by certain railroad interests—ostensibly acting through a department of the Government—to try to force them to give up their property and their rights on the pretense that such an act would be the breaking up of an alleged private car "trust" in a certain line of trade. The Department of Commerce and Labor is doubtless acting in good faith in the hearings before its Interstate Commerce Commission. The outside inspiration for the movement is another matter.

The private car, in itself, is an economic burden to its owners. In eight years it has been so repaired as to leave little interior trace of the former structure. It becomes antiquated. Its truck and gear are useless unless replaced gradually. The car as a property is a loss. Its necessity for the purpose to which it is put alone keeps it in existence. Will the railroads stand all this expense for the love of humanity? Or would they increase the freight rate to cover it?

NERVOUS BEEF

Nervous, highly-sensitive cows are said to be the best, especially for dairy purposes. The nervous man who is brought in contact with the bovine element thinks that nervous cows are decidedly the worst. There are those who think that the peaceful animal is fit for little beyond being petted. The dormant vital system does not seem to inherit the disposition to convert nutriment into body tissue, flesh and fat. In the human species it is said that the most highly-bred and most refined are the most timid and sensitive, and, hence, the most nervous.

There is a difference between nervousness and irascibility. The former is retiring in its initiative; the latter is aggressive and is typified by the old-time, long, lank, lean Texas steer of the antlered type. Some people never get fat, no matter how much they eat. Some again cannot get lean, no matter how little they eat. It is the breed. This breed question is as important in selecting beef animals either for the stud or the stall. The nervously timid is the more tractable and docile animal for the feed lot, and not the hot tempered brute. An over-bred and in-bred animal may have his racial vitality bred out of him and only a bad temper left as his inheritance. He would make both a bad sire or an unprofitable steer for beef finishing purposes. This is an important matter to both the breeder and the feeder.

TECHNICAL AND SCIENTIFIC

NEATSFOOT OIL.

Oleum bubulum is the scientific name of the oil obtained from the feet of oxen and cattle. Far from being what its name implies, however, is the neatsfoot oil found in the retail market, in the drug stores, for instance. This latter is an adulteration of one of the poorer grades of the true oil with such cheap oils as fish, etc. Its color is a dark brown or red, and its odor unpleasant and peculiar. The best grades of pure neatsfoot oil are of a bright yellow color, resembling in this respect the high grades of olive and cottonseed oils, possessing an individual flavor and a sweet taste. Such oil, however, is scarcely obtainable at retail, since all of the visible supply of it is eagerly sought for by leather dealers, manufacturers, and the tanneries, where it is principally employed in the curing and treating of hides, skins, furs and the like.

The quality of neatsfoot oil is ascertained by chemical and physical tests, among the former being the cold and the free fatty acid tests. Oils which possess a low cold test as well as a low fatty acid test are superior to others, having opposite qualities. In order to lower the cold test the oil is subjected to pressure under the observance of varying temperatures, whereby a portion of the neatsfoot oil stearine is eliminated, resulting in a more limpid oil which obtains its transparency at a lower temperature than does the untreated oil. The neatsfoot oil stearine is a valuable by-product.

The amount of free fatty acids present in the oil can be kept at a minimum only by a proper treatment during the manufacture of the raw oil. Oils containing a percentage of free fatty acids in excess of one or one and one-half are becoming rancid, and are on this account questionable in regard to their grading. The best grades of neatsfoot oil manufactured in the large abattoirs do not, as a rule, contain more than 0.5 to 0.75 per cent. of free fatty acids, while the second grades may contain as much as 5 per cent. of it. Any excess of acid found present in neatsfoot oil is readily traceable to carelessness and neglect of the manufacturer, and should be promptly remedied, since it is no more expensive nor more difficult to make a good oil than it is to make it poor. Physical tests are concerning the color, the flavor, and the taste of the oil.

While not benign objectionable to any large degree, it is not deemed consistent with sound policy to use the oils obtained from horse's and sheep feet for an admixture of the true neatsfoot oil, as these oils are inferior to that from cattle for most of the purposes the latter is intended for.

The best oil is found in the feet of cattle deprived of the hoofs, and in the shin bones. While the former are apt to cause a discoloration of the product, the oil obtained from the shin bones, although inferior on account of its high stearine content, is almost universally added to the foot-oil proper without discrimination. The hoofs are removed from the feet by especially devised machinery, and the shin bones are sawed off by circular saws, after the sinews have been removed for the glue factory.

The rendered oil, being first thoroughly dried, is stored in clean packages in a cool room or cellar for its future treatment in the press room, or may be brought upon the market without being pressed, wherever no specification is made concerning its cold test, or circumstances require otherwise.

The prices of neatsfoot oil vary, according to quality, a fair average being 60c. for first grades, and correspondingly less for the seconds.

Neatsfoot oil is a highly valued lubricator for delicate machinery, guns, etc., based on the fact, in part, that it is nearly devoid of the objectionable gumming met with in various other lubricators. Its rapid penetration renders neatsfoot oil especially valuable in pharmacy and medicine for the incorporation of medical agents for external application. Needless to say, nothing but the best grades are available for this purpose. Likewise in liniments of various composition, neatsfoot oil is preferable to most of the other oils used in such preparations as the fatty ingredient, with the possible exception of lanolin or wool fat.

SPENT TAN AS A FERTILIZER.

Wherever spent tan is available in quantities sufficient for the purpose, and at a reasonable price to warrant its employment, a serviceable fertilizer may be obtained by using the tan as litter. Spent tan possesses not only the quality to absorb a large quantity of the liquid manure, but also acts as a retaining substance of the gaseous ammonia, forming during the decomposition of the manure. Such decomposition occurs very readily, due to the abundance of moisture and organic material present in the tan. The humic acid, which is one of the decomposition products, neutralizes the escaping ammonia by forming a non-volatile compound. Spent tan thus treated is most conveniently stored in large heaps, protected from leaching by rains, still provided with a sufficient quantity of moisture. The manure has ripened and is ready for spreading after two to three months.

ROSIN IN VARNISH AND SHELLAC.

A method for the detection of rosin in varnish and shellac based on the solubility of metallic salts of the acids of rosin in petroleum spirits allows of the detection of 5 per cent. of rosin. The sample of shellac is dissolved in a little alcohol, the solution poured into water, and the fine impalpable powder which is precipitated is collected and dried. It is then extracted with petroleum spirits and the solution shaken with a little water containing a trace of copper acetate. If rosin is present the petroleum spirit will be colored emerald green.

DECOLORIZATION OF FATS AND OILS.

In the de Bruyn process for decolorizing oils and fats the chief object in view is to prevent oxidation of the fat or oil while it is being mixed with the bleaching agent, and also to improve the action of the latter by depriving it of all traces of moisture. This end is accomplished by carrying on the mixing process in vacuo, while the moisture is extracted by the aid of suction apparatus. A hermetically closed horizontal cylinder is fitted with a shaft, carrying a number of paddles. The cylinder is provided with a double bottom to enable it to be heated by steam; and there are also the usual safety appliances, the safety valve in the double bottom, the vacuum gauge and thermometer tubulus. The charge is introduced into the cylinder through the pipe; samples can be drawn through the tap, and the contents discharged through the tap pipe. Steam is admitted through another pipe and the water of condensation drawn off through another tap. The cylinder is also fitted with a manhole and a tubulus for connecting the interior with an air-pump. The bleaching agents are introduced into the cylinder, which is then fastened up, and the internal air is exhausted by means of the air-pump connected with the tubulus.

When an almost perfect vacuum has been obtained the fat or oil to be treated is run in from the storage tank through the tap provided for this purpose. As soon as the charge is in the supply is shut off, and the mixer is started, heat being applied by admitting steam into the double-bottom. The operation is continued for a period depending on the character of the substance under treatment, and at a temperature influenced by the same considerations, until a sample, taken from the tap, shows that the decoloration is accomplished. This done, air is readmitted to the cylinder, the mixer is stopped, and the contents are discharged into a filter press.—Rev. Chim. Ind.

THE NATURE OF FIBRIN.

Fibrin is a member of the important group of albuminoid or proteinous substances which, embracing albumen, casein, gluten, and other allied compounds, constitute essential principles of animal and of the higher vegetable organisms. The substances are distinguished among themselves more by physical peculiarities and properties than by distinctions of chemical constitutions, which, indeed, is so variable as to point to the conclusion that the various principles are not to be regarded as definite chemical compounds. In a physiological sense fibrin results from the union of two albuminoids which exist separately in the blood, fibrinogen and the fibrinoplastic substance.

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BEARS GREASE.

According to Raikow, fresh bear's grease is very similar to lard—coarse-grained in structure, pure white, clear and partly translucent; the belly fat is clearer and softer than that from the kidneys, and has a faint, agreeable smell of lard. When kept for twelve months in a sealed bottle, the unmelted fat goes somewhat yellow and slightly rancid, whilst the melted fat keeps perfectly sweet and white. The chopped fat, placed in a test-tube plunged into an oil bath at 250 deg. C., quickly melts and assumes a pale yellow tinge, but does not evolve any vapors capable of acting on blue litmus paper. The sample for analysis was melted, as in an oil bath, at 160 deg. C., filtered while warm, and stored in closed flasks. It was slightly yellow, and semi-fluid at the ordinary temperature, with white, granular matters in suspension. The solidification point is not easy to determine, the fat being merely of the consistency of ointment at zero C. The solubility in alcohol is but slight. The specific gravity is given as 0.9104 at 25 deg. C., and 0.9209 at 15 deg. C. for the belly fat, and 0.9211 at 15 deg. C. for the kidney fat. The acid value of both is 2.2 to 2.3, but while the ester value of the belly fat is only 192.6, that of the kidney fat is 198.1 to 198.3. The iodine value of the belly fat is also lower than of the kidney fat, being 98.5, against 106.5 to 107.4. The Reichert-Meissl value is 1.66 for the belly fat and 1.15 for the kidney fat. The melting points of the insoluble fatty acids, determined by the Pohl method, are 32 to 32½ deg. C. and 30½ to 31 deg. C. respectively, and both fats give the same refractometer index, viz., 61.2 at 25 deg. C., and 53 at 40 deg. C.

In comparison with the most nearly allied fats (dog, fox and cat fats), bear's grease is of lower specific gravity and melting point, but much higher iodine value, the differences being attributable to the nut diet of the bear. With regard to the constants given above, the iodine value does not follow the rule discovered by Henriques and Hansen, according to which the iodine value of animal fats is lowest in those obtained from the internal organs, the converse being the case here. A similar tendency is exhibited by porpoise fat. —Chemiker Zeitung.

PALM OIL MACHINERY.

The committee for the advancement of agriculture in German colonies recently offered a prize of \$400 for the best machinery for preparing the fruit of the oil palm for export, a machinery for loosening and removing the pulp surrounding the hard kernel, a press for extracting the oil from this pulp, and a machine for crushing the hard shells of the kernels and separating fragments. At present, although the annual exports of palm oil and palm kernels from the German West African colonies of Togo and Cameroon amount to a value of nearly \$1,750,000, the preliminary treatment of the fruit is carried on exclusively by the natives in a most primitive manner, so that about two-thirds of the oil contained in the fruit is entirely wasted. Consequently, the provision of suitable machinery for preventing this waste is a matter of considerable importance, more especially in view of the fact that the oil palm flourishes all over Central and West Africa, and enjoys the distinc-

tion of being almost the only known useful plant that will continue to yield without any attention a rich harvest for many decades in succession. The prize was awarded to the firm of Fr. Haake, 32 Beusselstrasse, Berlin, Germany.

SOLUBLE ANTISEPTIC BLOCKS.

The Societe des Produits Chimiques Speciaux, has succeeded in overcoming the inconveniences of the commercial form of formaldehyde for disinfectant purposes by converting it into solid blocks, which are soluble in water, and can be made into solutions of any desired strength. The new preparation is made by mixing trioxymethylene with sodium sulphate, which latter substance is both soluble in water and possesses the property of dissolving the trioxymethylene, which is itself insoluble. Thus when the mixture is dissolved in water it liberates formaldehyde, the amount of the latter produced increasing with the proportion of sodium sulphite, which in any case is small. The preparation may be incorporated with other antiseptics, to furnish mixed products, and may be scented or colored as desired.

NEW SOURCE OF PALM OIL.

A small sample of palm nuts was received from the African Kontagora province recently. Palm kernels are already exported from Northern Nigeria, and in 1900-01 the exports of this commodity from the British Protectorate were valued at \$15,000. It is possible that the direct trade in palm kernels might be increased, since large quantities of palm kernel meal and oil are now imported into England from Germany where these kernels are bought in enormous quantities for the expression of palm kernel oil and the manufacture of feeding stuffs.

NEW PATENTS.

770,969. Portable Refrigerator. Emanuel Johns, Puyallup, Wash. The combination with a packing compartment having series of screw-eyes in its inner sides thereof, of an ice-compartment extending centrally from the bottom to near the top of the packing-compartment, rings secured to the outside of said ice-compartment at points thereon corresponding to said screw-eyes, rods adapted to hook into said rings and into said screw-eyes to form the supports for shelves and to brace and hold said ice compartment in position, shelves placed on said rods and adapted to receive and support the

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fruit-boxes in said packing-compartment, a lid closing said packing-compartment and having a hole therein and cover thereto adapted to give access to said ice-compartment without giving access to said packing-compartment.

THE PROTECTION OF COMMERCE.

Notwithstanding peace tribunals, war remains the ultimate resort of national disagreement, writes Michael White in The Four-Track News. The motive of it, however, is no longer for the subjugation of races, or the possession of thrones, but the protection or extension of commerce. Hence as we pass the threshold of the age of commerce, we may remark as not without a significant bearing upon the future that, monsters as are our battle ships, the leviathans of the deep are our merchantmen, competing, not with torpedoes and shells, but in speed, capacity and economy.

If some there are who say the battleship has reached its highest development to give place to fleets of smaller craft, no voice is heard venturing the same opinion of our merchantmen. Hence it is our merchant vessels rather than our battleships which typify an advance in the direction of universal peace and civilization.—Chicago Evening Post.

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NEW INCORPORATIONS.

Dover Ice Company, Dover, N. J., has been incorporated by G. M. Bowlby, Roswell S. Bowlby and John C. Emery. The capital is \$2,500. It will manufacture and sell ice.

Anna Ice & Cold Storage Company, of Anna, Ill., has been chartered. The capital is \$10,000, and the incorporators, J. F. Williford, Wm. M. Edelman and C. J. Boyd.

Brooklyn Creamery Company, of Jackson, Mich., has been chartered. The capital is \$5,000. The promoters are J. W. O'Leary, W. I. Culver and others.

Stitzer Creamery Company, of Stitzer, Wis., has been chartered with \$1,600 capital, by Joseph N. Griswold, J. B. Mauer, John A. Stippick, W. T. Weir et al.

S. N. Church Corporation of New York City, has been incorporated to engage in the cold storage business. The capital is \$5,000, and the directors are M. D. Kapple, E. C. Church and D. Kapple.

Brookfield Creamery Association, of Brookfield, Ia., has been chartered with \$5,000 capital. The directors are D. O. Ellingson, E. A. Tenold et al.

Associated Brewing Company, of Brooklyn, N. Y., have been incorporated by Martin K. Robinson, Edward G. W. Ferguson and James F. White, all of Brooklyn.

ICE NOTES.

Work has been started for the cold store of the Crystal Spring Ice Company, at Wellsville, O.

The Manitoba Cold Storage Company, at Winnipeg, Can., has opened its plant. It is equipped with modern fittings throughout. The warehouse has 185,000 cubic feet storage room.

The Pittsburg Packing and Provision Company, of Pittsburg, Pa., has decided to spend about \$7,000 on improving its cold stores.

W. R. Lane will put in an ice plant at Walnut Ridge, Ark., to cost \$10,000.

An attempt is being made to interest capitalists in Sterling, Ill., in building a cold storage plant as there is none in that territory.

A rate war is on in New Orleans, La., among the ice companies, and the price is now 10c. per cwt. at the platform, and 15c. per cwt. delivered.

The L. C. Pates Company, New Haven,

Conn., has bought land on which to build a new cold storage plant.

A cold storage warehouse has been opened in Sandusky, O., by the Consumers' Ice Company. It is cooled by a natural ice cold air circulation system.

Members of the Isthmian Canal Commission have under consideration the matter of establishing a cold storage plant on the Isthmus of Panama. This procedure, it is said, is deemed necessary for the proper care of fresh foods used for the laborers and others now engaged in the construction work. It is understood that plans for a suitable plant have been submitted and that they are being gone over by the members of the commission.

F. O. McHenry has purchased a site at Oakland, Calif., on which he will build a cold storage plant at once.

FIRES AND ACCIDENTS.

A boiler exploded in the Stratton Ice Company's plant at Pensacola, Fla., on October 6, and wrecked the plant. An estimate of the damage has not yet been made.

The big barn of the American Ice Company near Bryn Mawr, Pa., burned recently. Twenty-six horses and mules were burned. The loss is \$15,000. Cause unknown.

William Garlick, president of the Garlick Ice Company, of Meriden, Conn., was killed in a runaway accident near his home, October 10. He was fifty-seven years old and well known throughout the State.

"HYGEIA" WATER—A BY-PRODUCT.
(Abstract from Cold Storage and Ice Trade Journal.)

In the last few years there has been an increasing demand for a pure and palatable drinking water. Housewives have long since learned the many pure and wholesome qualities of "hygeia" ice, which is free from the contamination of lakes and rivers, and are now demanding a "hygeia" water.

By Nature's method the water is first evaporated by the sun's rays and ascends in the form of a vapor to the upper atmosphere, where it is condensed and passes again to the earth, where filtration takes place, producing in many parts of the world an almost absolutely pure water, in many cases possessing healthful and healing properties

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contain no tar, oil or resin and are entirely without taste or odor. In cold storage and refrigeration they have long been the recognized standard for high-class construction.

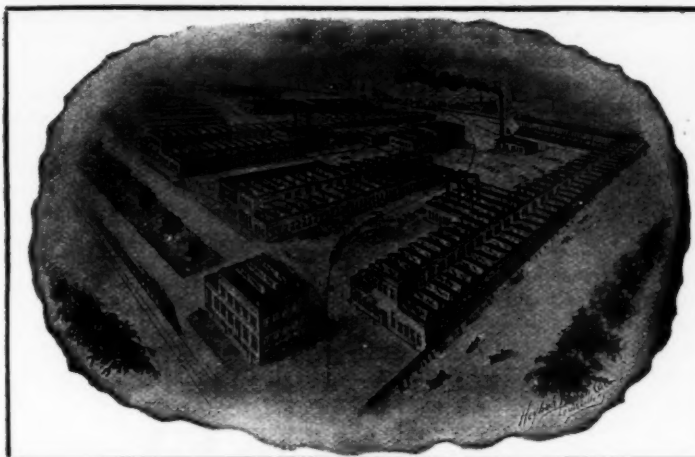
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gathered from the minerals of the various strata of the earth through which it passes, such as sulphur, seltzer and vichy water, apollinaris and hundreds of other mineral spring waters, many of which are used for medicinal purposes. The analytical chemist has been able to reproduce these waters, often eliminating or adding to their properties for the benefit of mankind.

The major part of the public imagine that the distilled water from which ice is made is not fit for drinking purposes, believing that it contains oils, etc., gathered from the ice machines, pumps, etc., which cannot be filtered or distilled out, but is of a sufficient degree of purity to make pure ice. They are, in a way, correct, but the real reason lies in the fact that the water is evaporated in the boiler at so high a temperature that the organic matter in the water is subject to such an intense heat, that it partly burns up, producing foul gases which mingle with the steam and vapors as evaporation takes place and are absorbed during condensation. These foul gases cannot be separated from the water after condensation. Consequently we have a water that has a flat, nauseous taste, and cannot be made palatable, but which is not necessarily injurious to the health.

Many inventors have labored to overcome the objectionable qualities of the distilled water as used in the manufacture of ice, until to-day a series of apparatus have been perfected by which an absolutely pure, healthful and palatable drinking water is made.

The reason that ice manufacturing plants have come into prominence in connection with the manufacture of "hygeia" water is that the heat of fuel gases and exhaust steam can be utilized, while they are now going to waste. In the case of the exhaust

steam it is returned to the steam condenser of the ice plant much cooler than it would be under ordinary conditions, thereby making a saving in the operation of the factory. It is a well known fact that only about 60 per cent. of the heat of perfect fuel combustion is taken up by the water, the other 40 per cent. going into the atmosphere. The temperature of fuel gases vary, ranging from 400 degrees to 800 degrees F. Even at these temperatures much cannot be done in the way of evaporating without the use of a special apparatus.

We will start at the source of water supply—water inlet connecting with sand filter, which can be from any reliable supply, such as service pipe in cities having water systems. The water is admitted into the sand filter, where all matter held in suspense is removed. These filters are usually cylindrical in construction and made of one-sixteenth inch galvanized iron and finely perforated plates inside of the heads, which are covered with fine wire netting to prevent the sand from carrying through. The top head should be flanged and bolted on, so that the interior of the filter is made easy of access for cleaning. The top and bottom heads are connected by a pipe, supplied with a valve, so that the flow of water can be reversed and the filter flushed out. The outlet from this filter is connected with a small tank, with ball cock, to regulate the supply of filtered water and maintain a constant height of water in the evaporators.

Intervening between the tank and governor is a small receptacle with a perforated strainer, to prevent any dirt or scale that might accumulate in the pipe connections from passing through and in any way affecting the governor valve, which is of the float pattern.

By means of the tank and governor, the evaporators are fed automatically, so that there is never any danger of water in them getting too low.

There are two evaporators; the lower utilizing the hot fuel gases which are bypassed from the main flue, while the upper employs the exhaust steam. A partial vacuum is maintained in the evaporators converting water into steam at a lower temperature, about 140 degrees F., than at atmospheric pressure. Thus, there is no chance of subjecting the organic matter in the water to a sufficiently high degree of heat to burn it up, producing the foul gases

referred to in the forgoing part of this article.

The evaporators can be used singly, if desired, depending on the amount of water to be evaporated, and are blown out every twelve hours to prevent contamination.

In connection with the lower evaporator is a vertical tank for fuel oil, supplied with a fuel oil burner, which can be used instead of the fuel gases and exhaust steam when the boilers are shut down for repairs.

The upper evaporator is supplied with a dome, similar to any steam boiler, which is equipped with a baffle-plate to prevent the water from carrying over, as the action of the vacuum pump agitates the water. Should any water carry over, it precipitates in the trap above the evaporators and is returned to the upper evaporator.

The dry steam and vapors pass to the condenser and cooler, where the steam is condensed into water again and cooled, and the water vapors pass to the separating chamber directly under the cooler. In the separating chamber, the foul gases, if any, and the vapors are removed by means of

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Atlanta, Century Building, Southern Power Supply Co.
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Cincinnati, 9 East Pearl St., C. F. Culbert.
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Kansas City, 717 Delaware St., O. A. Brown Company.
Omaha, 1018 Leavenworth St., Wm. M. Bushman.
Liverpool, Adelphi Bank Chambers, Peter B. McQuile & Son.

the vacuum pump, which draws the water through the cooler and maintains a vacuum in the system from the foul-air-separating chamber to the evaporators. The distilled water at no time comes into direct contact with the vacuum pump, thus preventing any possible absorption of oil or grease by the distilled water.

The condenser and cooler should be placed at a sufficient height from the aerating chamber to overcome the atmospheric pressure, about 34 feet. The water will then flow freely through the aerating chamber to the storage tank.

Directly in front of the aerating chamber, as the distilled water passes on its way from the separating chamber, is a small check valve, which plays a most important part in the operation of the system. This valve opens only one way, allowing the water to flow into the aerating chamber, but the moment the water ceases to flow for any reason, it closes automatically by its own weight and the weight of the atmosphere combined, preventing air from being drawn into the system from the check valve to the evaporators. If any air should get through, it would break the vacuum, and the water would cease to evaporate in the evaporators.

After the water passes through the check valve it falls on perforated plates in the aerating chamber and percolates in the form of a fine spray meeting a blast of pure sterilized air, which it absorbs, thus becoming aerated.

We will now see how the sterilized air is made. A large cylinder of cast iron is

placed in the combustion chamber under an ordinary steam boiler, where it is subjected to an intense heat. This cylinder has two pipe connections, one of which runs outside of the building, through which the air is drawn by the air compressor, indirectly connected with the other pipe connection. The air compressor is kept constantly in action and the air drawn into the cylinder is heated, and all living organisms killed. The air passes from the cylinder to the hot air cooler, where it is cooled and then drawn through the sterilized air washer and scrubber, where all dust and other impurities are taken out.

The air washer and scrubber is kept partly filled with distilled water and is blown out every twelve hours.

After passing the washer, the air compressor or aerating pump draws the sterilized air into the water separator, from which it is drawn into the air compressor, and then discharged into the aerating chamber, where it is absorbed by the distilled water.

The aerated distilled water falls from the aerating chamber into the storage tank, which is constructed of galvanized iron, and is cylindrical in form.

The next course of the water is through a bone and willow charcoal filter of similar construction to the sand filter. The upper part of the filter is filled with the bone black, which acts as a decolorizer, and also supplies the lime, magnesia and salts to the water, while the lower part of the filter is filled with willow charcoal, deodorizing and

purifying the water. A distilled water is a good solvent, it will naturally absorb a sufficient amount of both charcoals to make it palatable and healthful.

There are very few ice manufacturing plants which have enough exhaust steam from the ice machine, pumps, etc., to fill the cans when condensed, and consequently they have to use live steam. The exhaust steam from the air compressor and vacuum pump will go toward making up the deficiency, and as it requires less cooling water to condense it when it gets to the condenser, it thus results in another saving to the ice factory.

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The Compressor Stuffing-Box, by J. C. Goosmann, M. E.
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The Use of Hygrometrical Instruments, by Karl Wegemann.
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NEW YORK

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BOSS LARD COOLER AND AGITATOR.

It is a well-known fact that lard rapidly cooled and agitated is made whiter and smoother, because agitating cuts the grain. The packers knew this for years, and in order to assist the butchers to turn out the finest quality of lard the Cincinnati Butchers' Supply Company are manufacturing their Boss Lard Coolers and Agitators in the following sizes to meet the requirements of all butchers: 45, 60, 85, 110 and 150 gallons.

They are built of galvanized steel. These jacketed coolers for cold water circulations are closed on the top and have an extra wooden bottom. The agitators scrape the lard from the bottom and the sides, and the extra paddles work it in all directions. Readers who have use for such a machine are advised to write the Cincinnati Butchers' Supply Company for prices.



THE BOSS LARD COOLER AND AGITATOR.

NEW STURTEVANT INSTALLATION.

Among the many recent installations for heating and ventilating public buildings is that for the Worcester City Hospital at Worcester, Mass. The buildings, seven in number, are located a short distance from the centre of the city at the top of a long hill, and are therefore exposed to severe weather in the winter. The arrangement in the new ward building is typical of the Sturtevant system. A Sturtevant fan draws the fresh air from the top of the building, a distance of about 45 feet from the ground, through brick flues, and into galvanized iron ducts to the tempering coil, where the chill is taken from the air. It is then drawn through the fan which runs at a slow speed, typical to public building work, and forced through the heater containing coils of 1-inch steam pipes enclosed in a fire-proof steel plate jacket and thence to the plenum chamber, which is divided horizontally into two chambers, one for the hot air and one for the tempered air, the latter passing underneath the heater from the fan.

By means of mixing dampers, automatically controlled, the air is mixed to a desired temperature, and is forced by the pressure

from the fan through the distributing ducts to the different rooms. To assure positive ventilation in the rooms, a Sturtevant electric propeller fan located in the basement draws the air through registers in the floor into galvanized iron ducts and discharges it outside.

ELECTRIC HOISTS.

Electric hoists is the theme of a circular which the C. W. Hunt Company, of New York, has recently issued. It has illustrations of the various parts of the machines, with complete descriptions of their purpose. The hoists are made in sizes running from 5 to 200 horse power. The circular is a very complete exposition of the "how and why" of the electric hoist and all its parts, and will be of great interest to all who have



occasion to elevate or lower materials of any kind. The hoisting tables showing the working loads in pounds that can be safely hoisted, and the drum capacity on various sizes of rope, are of interest and value. The booklet is copyrighted, but may be had free on request of the C. & W. Hunt Company, 45 Broadway, New York.

EDISON CO. BUYS NORTHERN MOTORS.

The Northern Electrical Manufacturing Co., of Madison, Wis., recently shipped to the New York Edison Co., thirty-four of its variable speed motors, operating on the Northern two-wire field control system. These motors will be directly coupled to blowers for cooling the transformers in the various sub-stations of the company. There were also shipped recently nine small Northern motors

to be installed in the sub-stations of the Brooklyn Rapid Transit Co.

This makes a total of seventy-five Northern motors now in use by the two companies, aggregating 1,500 h. p. A 60 kw. Northern balancing set has been shipped to the New York Edison Co. for the equipment of its Waterside station.

HORNSBY-AKROYD OIL ENGINES.

The "Hornsby-Akroyd" Patent Safety Oil Engine is manufactured by the De La Vergne Machine Co., foot of East 138th street, New York, in various sizes from 1½ to 125 H. P. There are now 10,000 of these engines in successful operation in all parts of the world. To this engine, it is believed, has been awarded a prize in every competition in which it has been entered. One of the most recent awards is \$5,000, given by the British War Department for a military traction engine in a competition open to the world.

The De La Vergne Machine Co. has recently installed the following Hornsby-Akroyd engines among others:

- U. S. Navy wireless telegraph stations, eleven engines.
- U. S. Light-house establishment, Tompkinsville, N. Y., eight 13 B. H. P., with air compressors.
- U. S. Light-house establishment, Boston, Mass., two 4 B. H. P.
- U. S. Light-house establishment, San Francisco, Cal., two 20 B. H. P.
- Department of Bridges, New York City, one 7 B. H. P.
- Otto Huber Brewery, Brooklyn, N. Y., one 20 B. H. P.
- Luna Lead Co., Jose, New Mexico, four 25 B. H. P.
- Quartz Ice Co., Elizabeth, N. J., four 50 B. H. P.
- New York Central & Hudson River R. R., two 13 B. H. P.
- Colgate & Co., 55 John street, New York City, one 25 B. H. P.
- Young Men's Christian Association, Plainfield, N. J., one 20 B. H. P.
- Alphaduct Mfg. Co., New York City, one 7 B. H. P.
- Western Electric Co., New York City, one 20 B. H. P.
- Wm. J. Buttfeld, Plainfield, N. J., one 20 B. H. P.
- G. F. Craig, Rosemont, Pa., one 7 B. H. P.
- Hajek Marble Co., New York City, one 32 B. H. P.
- Municipal Telegraph & Stock Co., Albany, N. Y., one 20 and one 13 B. H. P.
- A. M. P. Cowley, White Bear Lake, Minn., one 4 B. H. P.
- Thirteenth Regiment Armory, Brooklyn, N. Y., one 20 H. P.
- Indiana Pipe Line Co., Oil City, Pa., three 32 H. P.
- Ohio Oil Co., Oil City, Pa., one 25 H. P.
- Charles Mill Supply Co., New York, one 13 H. P. and one 7 H. P.
- Westinghouse, Church, Kerr & Co., New York, one 9 H. P.

Many of these engines use crude oil as fuel and consequently the cost of operation is then less than with any other prime mover.

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brine or oil piping

PROVISIONS AND LARD

WEEKLY REVIEW

All articles under this head are quoted by the bbls., except lard which is quoted by the cwt., in tcs., pork and beef by the bbl., or tierces, and hogs by the cwt.

Radical Shake-up of Prices—Marked Pressure to Sell on the Declining Tendency, Followed by Firmer Conditions—Stocks Further Reduced on Steady Large Shipments—New Cash Demands Quieter—Statistical Positions Better, But Hog Receipts Increasing.

The exports of lard have been of enormous volume latterly, while of meats they have been of more importance than before in some time.

Of the nearly 70,000 tierces (22,295,031 pounds) lard that showed in the clearances to the other side in the previous week's export table (accounting for the big reduction in the Chicago stock, October 1), fully 14,104,171 pounds were to the continent, and 7,158,405 pounds to the United Kingdom. The United Kingdom will have 12,208,453 pounds out of the total shipments of 13,347,335 pounds meats for that week.

Moreover, there are large shipments this week on old buying orders; nevertheless that they are not so large as those of last week, which was about the record week for lard exports. And the volume of the additional packing has probably been exceeded by the late exports.

The stocks of pork, meats and lard are naturally materially reduced at the pack-

ing points, more particularly of lard; therefore, from statistical reasons alone considered the hog products would be much better situated than at any other time latterly if there was shown any disposition to support the markets for them.

But it is borne in mind that the large shipments to Europe will fill in in a general way needs, and that the large consignments and increased demands followed a long period of idleness in buying; therefore, that the movement was of a spasmodic order, which was likely to be followed by quiet situation, particularly as relating to the export business.

The fact that new demands from Europe are slacker and that home buyers have diminished interest in lard, however, that the home demands for meats run along of fair volume, means more to the current market developments than the fact that the stocks are greatly reduced from those held a few weeks since; they prevent manifestations of holders for firmness.

Besides with the some subsidence of cash demands for lard particularly, but for meats so far as concerns the export interest in them, greater freedom is permitted in taking in the larger supplies of hogs at unexcited prices; indeed, the hog supplies most of the week have been at a weak price, and show decided declines. The desire to put the packing down at lower prices has had encouragement from the fact that the prices of

hogs have stood for some time relatively too high with the values of the products.

A reaction in the hog products markets to lower prices, after the late burst of excitement and activity to them, was in order, particularly at the time of increased hog receipts at the packing points which have been shown this week, at least moderately.

The hog supplies are now gaining upon those had at this time last year, yet it is doubtful if full, free receipts of hogs will be had before next month.

It is counted upon that the forage crops of the country are sufficient to give a liberal volume of feedstuffs, but that the hog supplies are not likely to be held back in the interior for protracted feeding, but rather that they will be urged to market as soon as they can be got in fairly good conditions, since there is every prospect of corn prices keeping relatively high as against the hog market conditions.

The pig supply of the country is believed to be a liberal one, and it is like as it comes up to fair average weights that it will be pushed promptly along to the packing centres.

Not only the hog products, but essentially the fat markets generally have been yielding in prices through the week.

Whatever effect the corn crop reports have had upon the hogs products markets (probably they have been only of a light order),

THE W. J. WILCOX

LARD AND REFINING COMPANY

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REFINED
LARD



the fact remains that cottonseed fat has yielded rather decidedly in price and partly because of the prospects of a larger cotton crop than some calculations concerning it only latterly, and as well through the effects from the lower lard market, which latter necessarily shortens demands for the compounds and makes the manufacturing interests which use cotton oil very conservative in buying it. Besides, it looks as if the tallow market had reached its limit of firmness since there is subsidence of excitement in the English market for it, while the home buyers, as regarding the volume of the corn and cotton crops, and the absence of competing demands for the tallow have been able to buy it at easier prices for the week. New York city hhd. tallow sold at a decline of $\frac{1}{8}$, or at 4 $\frac{1}{2}$ ¢.

While the hog products markets had been yielding for two or three days subsequent to the outside trading basis that had been secured, the more important decline for them took place in Wednesday's market in which a leader was freely offering to sell lard and ribs, while it was easy to offer the market down on the light outside speculative interest, yet that the depression then was intensified by stop loss orders.

The grain markets were generally higher on that day, and which implied lack of influences except those indicated on the hog products markets.

But it was regarded that Wednesday's decline in the hog products markets had brought them to a point from which reactions were probable, if only of a temporary order. And the moderate advance in the prices of the hog products on the day following (Thursday) was no surprise, notwithstanding the fact that the supplies of hogs were again of very fair volume, and their prices additionally lower. It looked on Thursday like a squeeze on October lard and ribs and as favored by the reduced stocks of them, if "shorts" are shown to be numerous.

In New York there is an easier market for pork, with sales of 250 barrels mess at \$13@ \$13.50; 550 bbls. short clear at \$14.50@ \$16; 150 bbls family at \$16.

Western steam lard has declined sharply on subsidence of cash demand and larger receipts of hogs; quoted at about \$7.70. City steam lard is weaker; quoted at about 7 $\frac{1}{2}$ ¢; sales early in the week 100 tcs., 7 $\frac{1}{2}$ ¢. Compound lard has become rather quiet; quoted at 6@6 $\frac{1}{2}$ ¢ for car lots. In city meats there is little doing in bellies, with moderate supplies on offer because of the strike; sales of 55,000 pounds pickled bellies, 12 lbs. ave., at 10¢; 14 lbs. ave., at 9 $\frac{1}{2}$ ¢; 10 lbs. ave., at 10 $\frac{1}{2}$ ¢; also sales of 2,500 loose pickled shoulders at 7@7 $\frac{1}{2}$ ¢, and 3,800 loose pickled hams at 10@10 $\frac{1}{2}$ ¢.

Exports for the week from Atlantic ports: 2,124 bbls. pork, 22,295,031 pounds lard, 13,347,335 pounds meats; corresponding week last year, 2,100 bbls. pork; 11,914,743 pounds lard, 10,343,747 pounds meats.

BEEF.—There is a little more of an export demand and a better jobbing business. City extra India mess, tcs., \$14.50@ \$16; barrelled, mess, \$8.50@ \$9; packet, \$10; family, \$11; western flank at \$10 asked.

PRODUCE EXCHANGE NOTES.

Proposed for Membership—James C. Francesconi, Frederick A. Heywood.

New Members—Frederick M. Brooks, Alden S. Swan, E. S. Woodworth, C. K. Trafton.

Visitors—Alton Hughes, W. J. Leonard, London; O. S. Hough, W. R. McElroy, H. M. Hooker, B. W. Place, J. L. Underwood, Chicago; M. Frank, M. Berg, Atlanta, Ga.; P. R. Jarvis, Minneapolis.

GERMANY'S COLONIAL MEAT SUPPLY.

A majority of the European countries are inter-dependent on their colonies for their meat supply. This fact is especially noticeable in regard to England, which could not exist from its own resources without the help of her colonies, Canada and Australia. France is likewise forced to admit her dependence on Algeria for meat, especially mutton, 1,334,000 lbs. of which were imported into France in 1902, against 174,000 lbs. from all other sources.

Much credence has been placed of late in the supposition that Germany will be in the happy position of supplying her populous home country with meats entirely from within her empire boundaries. Misled by the glowing terms of newspaper reporters in describing the abundance of the Herero cattle herds of Southwest Africa, speculative minds have calculated already the wealth in waiting for the pioneer of an immense cattle industry, which is destined to free the Germans of the necessity of buying the American products.

It is therefore interesting to become acquainted with the actual facts in regard to these speculative announcements.

A Mr. P. Fisher, who served in the capacity of imperial judge in close proximity to the supposed Eldorado for Germany's meat, is quoted as follows:

"While the soil is unquestionably very fertile and productive, climatic conditions favor food production but qualitatively, since the absence of air and moisture do not permit the obtaining of any large amount of forage and grains. The results are that vast areas are needed for the sustaining of comparatively small herds. Eighty acres of the soil will feed one head of cattle or one horse, while an area of 6 acres suffices for the sustenance of one sheep or goat. Large landed holdings of 24,000 to 30,000 acres are necessary for herds of from 200 to 300 head of cattle, and farms of about 80,000 acres are not infrequent. Four acres cost from 12 to 50 cents each, while the average for a fairly productive farm is about 45 cents."

EXPORTS OF PROVISIONS

Exports of hog products from Atlantic ports for week ending October 8, 1904, with comparative tables:

	PORK, BARRELS.		Nov. 1, 1903, to Oct. 8, 1904.
	Week Oct. 8, 1904.	Week Oct. 10, 1903.	
United Kingdom....	282	524	36,231
Continent	240	412	19,068
South & Cen. Am..	594	253	18,409
West Indies	930	851	59,409
Br. No. Am. Col....	43	90	10,305
Other countries....	15	....	1,998
Totals	2,124	2,100	145,410

BACON AND HAMS, POUNDS.			
United Kingdom....	12,208,453	8,970,403	501,764,892
Continent	902,767	767,494	55,450,695
South & Cen. Am..	50,725	373,150	5,093,471
West Indies	185,400	227,675	11,848,674
Br. No. Am. Col....	....	5,025	106,625
Other countries .....	....	....	1,577,397
Totals	13,347,335	10,343,747	575,841,784

LARD, POUNDS.			
United Kingdom....	7,158,405	6,347,021	241,734,993
Continent	14,104,171	4,295,817	276,436,348
South & Cen. Am..	276,330	397,935	15,969,097
W. Indies	733,865	729,600	32,509,038
Br. No. Am. Col....	....	2,100	383,410
Other countries....	22,200	142,550	8,810,747
Totals	22,295,031	11,914,743	571,178,630

RECAPITULATION OF WEEK'S EXPORTS.

	Pork, lbs.	Bacon and Hams, lbs.	Lard, lbs.
New York	1,993	4,892,025	8,573,020
Boston .....	....	1,975,575	969,985
Portland, Me.....	43	1,714,050	432,500
Philadelphia	43	490,059	5,359,195
Baltimore .....	....	225,085	4,441,075
New Orleans	45	40,600	1,406,025
Montreal .....	....	3,971,711	920,751
Mobile, Ala.....	....	36,750	192,500
Totals	2,124	13,347,335	22,295,031

COMPARATIVE SUMMARY.

	Nov. 1, 1903, to Oct. 8, 1904.	Nov. 1, 1902, to Oct. 15, 1903.	Increase.
Pork, lbs.....	29,062,000	29,119,800	....
Bacon & Hams, lbs.....	575,841,754	570,100,760	5,740,994
Lard, lbs.....	571,178,630	536,869,983	34,308,647

OCEAN FREIGHTS.

	Liverpool.	Glasgow.	Hamburg.
	Per Ton.	Per Ton.	Per 100.
Canned meats.....	7/6	12/6	16c
Oil cake.....	6/3	5/	13c
Bacon.....	7/6	12/6	16c
Lard, tierces.....	7/6	12/6	16c
Cheese.....	20/	36/	24c
Butter.....	35/	30/	24c
Tallow.....	7/3	15/	16c
Beef, per tierce.....	1/6	2/6	16c
Pork, per bbl.....	1/6	2/0	16c

EXPORTS SHOWN BY STEAMERS.

Following were the exports of commodities from New York to foreign parts for the week ending Saturday, October 8, 1904, as shown by Lunham & Moore's statement:

Steamer.	Destination.	Oil		—Beef—		—Lard—	
		cake.	Cheese.	Bacon.	Butter.	Tcs.	Pkgs.
Umbria, Liverpool	81	128	....	10	....	237	600
Carpattia, Liverpool .....	....	....	....	175	....	57	....
Baltic, Liverpool .....	....	2962	1155	....	....	5	8275
Georgie, Liverpool	1863	1201	....	283	....	30	197
St. Paul, Southampton.....	....	1687	....	....	....	....	1185
Minnetonka, London	56	30	1113	....	75	564	8910
Hindoo, Hull	2386	1655	....	100	....	50	889
Laurentian, Glasgow .....	....	139	....	60	....	....	250
Astoria, Glasgow .....	....	639	....	70	....	....	415
Phoenicia, Hamburg	250	....	10	72	....	290	1587
Potsdam, Rotterdam	2945	....	175	....	158	25	580
Kronland, Antwerp	5734	....	325	....	95	14	370
St. Andrew, Antwerp.....	2941	....	....	....	....	275	478
Fried. der Grosse, Bremen..	....	125	....	....	25	50	25
La Savoie, Havre	220	....	....	....	....	....	....
Montevideo, Mediterranean..	....	....	....	....	....	....	65
Prinz Adalbert, Mediterranean..	....	50	....	....	....	25	200
Clan McMillan, South Africa....	....	....	....	10	15	....	371
Totals	16339	1492	8320	2340	793	483	5379
Last week	18401	1077	13691	6210	911	1658	5311
Same time in 1903.....	15103	7818	7405	2753	261	1358	370
Last year, 225 tcs. tallow.	....	....	....	....	....	....	64031



See Page 48 for Bargains



TALLOW, STEARINE, GREASE and SOAP

WEEKLY REVIEW

TALLOW.—The London sale on Wednesday showed a subsidence of the buoyancy which had been going on in the English markets steadily for several weeks. The latest London market was a quiet one, with prices practically unchanged, although some of the cables had it that there was a partial decline of 3d at the auction sale. There were, however, only about 500 casks sold at the sale out of 1,250 casks offered, and this emphasized the point of dulness. Following this English news the New York market declined $\frac{1}{8}$, with 350 hhds. city sold at $4\frac{1}{2}$ c. to the local soapmakers.

It looks now as if the urgent demands of the continental markets upon England for tallow were about over, and that they had contracted closely for needs of supplies against the closing of continental countries inland navigation.

That the English market is resting from an excited period of trading is giving our home soapmakers some encouragement of keeping the markets here more in their own hands.

It is well known that the soapmakers of this country had been fearful of foreign demand for the supplies here, but that as each week went by without inquiry coming about, from the other side, despite the steady advance in the foreign markets, the home soapmakers became more disposed to chance the development of the European situation.

As the soapmakers have not taken very kindly to the late prices of the tallow here they are now, with the calmer English situation, even quieter in buying. Moreover, as the lard market has decidedly declined from the late outside prices and that there is a quieter business in compound lard, the soapmakers have less to fear from competing demands from the compound makers for the tallow supplies. Besides the cotton oil prices

are down about $2\frac{1}{2}$ c. per gallon from their late outside trading basis; therefore, the cotton oil being offered at relatively materially lower prices than tallow, makes the soapmakers more indifferent in negotiating for the tallow.

The tallow market has an easier tone, but it waits business for determined prices in all around way. Just now there are no sellers of city, hhds., under $4\frac{1}{2}$ c.; bids had been made early in the week, before the London sale, of $4\frac{1}{2}$ c., and turned down, while more recently the $4\frac{1}{2}$ c. price was accepted. City in tierces is offered at $4\frac{1}{2}$ c. Edible tallow is quoted at $5\frac{1}{2}$ @ $5\frac{1}{4}$ c.; sales of 200 tes. at $5\frac{1}{2}$ c.

Country made tallow is arriving a little more freely, but finds a slower sale. There were about 225,000 pounds, in lots, at $4\frac{1}{2}$ @ 5 c., as to quality, closing with $4\frac{1}{4}$ @ $4\frac{1}{2}$ c., quoted for prime.

Some tierced tallow was sold in Boston early in the week for export at $5\frac{1}{2}$ c.

(Continued on page 42.)

OLEO STEARINE.—There has been much more cautious buying within the last week, yet at the same time firm holding of late prices. The recent reaction in the lard market to an easier basis, and the fact that buyers had rather generally satisfied wants of both pure lard and the compounds in the burst of activity in them previous to this week, accounts for the present tameness in the stearine. But as the eastern pressers had reduced their holdings there is no pressure to sell among them. A very fair supply is still to be had at the west. The outcome of the market depends upon the near future of the lard market in its effect upon the compound lard business. There would be a little disposition to buy in New York at $8\frac{1}{2}$ c., but $8\frac{3}{4}$ c. is asked. Chicago quotes at $8\frac{1}{2}$ c. Sale of

a car lot out of town (30,000 lbs.) in New York, at $8\frac{1}{2}$ c.

LARD STEARINE has little attention of the lard refiners, but is not urged for sale; quoted at $9\frac{1}{4}$ @ $9\frac{1}{2}$ c.

COTTONSEED STEARINE.—There is a little more of a supply on offer and some export demand. Quoted at 35 to 38c. per gallon.

GREASE.—The export demand is not at all urgent, yet it takes moderate quantities of yellow, bone and house, at $4\frac{1}{4}$ @ $4\frac{1}{2}$ c. The market is about $\frac{1}{8}$ c. higher for the week. The home soapmakers as well as the pressers are a little more freely buying. Yellow quoted $4\frac{1}{4}$ @ $4\frac{1}{2}$ c.; sales of 90,000 lbs. yellow at 4c.; house, $4\frac{1}{2}$ @ $4\frac{3}{4}$ c.; bone, $4\frac{1}{2}$ @ $4\frac{1}{2}$ c.; B white, 5c.; A white, $5\frac{1}{4}$ c. The closing market is rather a weak one.

GREASE STEARINE.—Stocks are moderate; therefore, prices are firmly held; not much demand; yellow at 5c.; white, $5\frac{1}{4}$ c.

OLEO OIL eased up a little, but closed firm and on the whole has a good undertone, with light supplies on offer in Rotterdam and elsewhere. Rotterdam quotes 54 florins after sales at $54\frac{1}{2}$ @ 55 florins; New York, choice, $9\frac{1}{4}$ c.; prime, $7\frac{3}{4}$; low grade, 6c.

COCOANUT OIL.—A very strong market prevails, especially for Ceylon. On the statistical situation and the generally confident European markets. Ceylon, spot, quoted $7\frac{1}{4}$ c.; do, Oct. and Nov. arrival, 7c.; do, Sept. to Nov. shipments, $6\frac{1}{2}$ @ 7 c. Cocbin, spot, $7\frac{1}{2}$ c.; do, Oct. and Nov. shipments, $7\frac{1}{2}$ @ $7\frac{3}{4}$ c.

PALM OIL.—Not much doing here on moderate stocks. A firm market. Red, commercial, at $5\frac{3}{4}$ c.; Lagos at $6\frac{1}{4}$ @ $6\frac{1}{2}$ c.

LARD OIL.—Demands are increasing for small lots, and there is a fairly firm market. Prime quoted at $62\frac{1}{2}$ @ 63 c.

CORN OIL.—A slow trading with home sources and dullness on export account; quoted at \$3.65 to \$3.80 for car lots, to \$3.90 to \$3.95 for small lots.

NEATSFOOT OIL.—There is just an ordinary business in small lots. Little change in prices; 20 cold test, $95\frac{1}{2}$ @ 96 c.; 30 do, at $84\frac{1}{2}$ @ 85 c.; 40 do, at 62c.; prime, 50c.; dark, 45 @ 46c.

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383 WEST STREET
New York City

COTTONSEED OIL

WEEKLY REVIEW

THE NATIONAL PROVISIONER is an official organ of the Interstate Cottonseed Crushers' Association, and the official organ of the Oil Mill Superintendents' Association of the United States.

Decidedly Lower Markets—More General Offers and Some Pressure to Sell—Large Speculative Trading—Careful Buying of Home Sources—Slack Export Demands—Increased Offerings of Seed Supplies—Production Steadily Enlarging.

The cottonseed oil markets were weak at all of the seaboard markets at the beginning of the week, where most decline has been noted for the week. By the close of Wednesday's trading the break in prices in New York from the late outside figures was fully $2\frac{1}{2}$ c. per gallon, and the weakness continued on Thursday.

Easier prices are less marked at the producing points over the South, yet the fact remains that there has been generally increasing disposition to sell at the lower prices even at the South, while the home consuming interests, all around, have been taking supplies close to actual needs of them, yet that speculative trading in New York has been exceptionally large for the week, and exceeds 25,000 barrels prime yellow, as covering all deliveries.

The enlarged business has been done on the pressure to sell as concerns the seaboard markets, either in protecting contracts, or else to buy for speculation as has been the case in one or two instances, at least; moreover, there has been a little buying of the refined in New York as against sales of crude by the mills. Nevertheless that the declining tendency in New York for the week, as well as the general weakness and pressure to sell, met a fair number of export orders. From 13,000 to 15,000 barrels sold for export, mainly of prime yellow, taking in all deliveries to and including January, of which 3,500 barrels for October delivery. (The prices of the New York sales will be found at the close of the review.) Trieste alone took over 5,000 barrels. The market, how-

ever, is barely supported at the decline. Some of the sales included butter, white and winter yellow, at $31\frac{1}{2}$ @ 32 c. The latest sales of crude, in tanks, at the mills (additional to those noted further along in this review) are 40 tanks at the Southeast mills at $22\frac{3}{4}$ @ $22\frac{1}{2}$ c.; 5 tanks at 22 c., with 50 tanks more offered at $22\frac{1}{2}$ c., and sales of 20 tanks in Texas at 22 c. Indeed, the sales of crude in tanks since our previous review foot up fully 150 tanks at all points, and which showed the much more liberal disposition to sell at declining prices by the mills.

It must not be inferred that there is any general disposition on the part of the South to buy refined oil as against their sales of crude. The conservative mood on the part of the South in buying the refined oil against sales of crude is in strong contrast to the sentiment held by the South in the previous season, when its views over the extent of the cotton crop tended to it, while their views then turned out to be correct, as well as their deductions over cottonseed products prices, although last season's business had a poor end because of the overturned speculative manipulation to lower prices of hog fats, with their ultimate effect upon cotton oil prices.

The fact that there is unwillingness in a general way this season to buy the refined oil against the sales of crude on the part of the South, although that there was more of a disposition that way two or three weeks since than now, argues that the cotton crop prospects latterly have materially improved and that the mills have more hope of getting seed at prices lower than latterly prevailing, or that in any event there is now almost a certainty of an abundant seed supply, with the probability of a larger than last year's oil production.

It is too soon to give decided figures on the extent of the cotton crop. While we think that the prospects of a top cotton crop of

considerable magnitude are not at all cheering, yet as the cotton crop could be damaged in many directions through October there is no certainty in figuring over the present prospects of the crop. It would seem, however, as against any ordinary contingencies that a cotton crop could be counted upon if in the neighborhood of 11,500,000 bales.

The cotton in sight is now more than 600,000 bales greater than for the corresponding time in the previous year, with all the reported reserve on the part of planters in marketing the cotton. Yet that the cotton crop as a whole is a little earlier one this year than that of the previous year. But all sources last year at this time were able to market their cotton freely, and they had the greater inducement then to hurry their cotton to market by reason of the more satisfactory market conditions than now for it. So that with the hurried marketing of the cotton crop in the previous year, as against the temper exhibited of some reserve in selling the crop this year, the larger movement of cotton this year is a fair reflection of the increased volume of the crop, and which in all probability is about 1,500,000 bales greater than in the previous year.

And the rather favorable weather latterly for the cotton crop, with the greater assurance than before latterly of the indicated larger volume of it, there is beginning much more of a disposition for selling of seed supplies.

The marketing of the seed is steadily increasing; it cannot, however, be said, as yet, that the prices are down for the seed anywhere near the point that the mills think should be touched for active, general buying it, and as they take into consideration not only the large volume of the cotton crop, but the present and prospective prices for cotton oil. Yet that there are more mills buying the seed and that the oil production is steadily enlarging.

KENTUCKY REFINING CO.

LOUISVILLE, KENTUCKY, U. S. A.

MANUFACTURERS AND REFINERS
OF ALL GRADES OF

COTTONSEED OIL

"SNOWFLAKE"

A CHOICE WHITE OIL

FOR BAKING, FRYING AND COOKING

It is because of the oil production steadily gaining with the feature as well of the hopes the mills have of more reasonable prices for seed than those current, that there has been latterly much more of an effort to sell the crude oil by the mills.

From 23½c. for crude, in tanks, at the Southeast mills, at which sales had been made in the previous week, the market came down early this week to 23c., at which 40 tanks were sold, while there were 40 tanks more offered at 23c., and the bidding as reduced to 22½c.

This not only shows at least 1c. decline for crude, but the indifference in buying it; moreover, and that some sellers are as fearful or as uncertain of the market as buyers.

The temper of the cotton oil market this week not only has more antagonistic features than in the previous week, by reason of the prospects of seed supplies and their prices, with the naturally conservative demands for the oil from the compound makers, soapmakers and exporters, but it has working against it a lower pure lard market, diminished demands for the compound lard and slacker European markets for tallow.

It is true that at some time in the season a better export business than in the previous year should be done in cotton oil by reason of a short olive crop; but it is a fact that, just now, all of the European markets are awaiting for the cotton oil market to settle in this country, and with their belief in possible easy season's market values for the oil, and as it is encouraged by the ideas they hold concerning not only the cotton crop but the well recognized fairly large corn crop, although the latter, in our opinion, is not quite as large as the ordinary figuring

on the condition and acreage would make it. Yet conceding that there is a probable 2,300,000,000 to 2,400,000,000 bushel corn crop, but that most of the moderate increase of the corn crop over that of the previous year is at the South, and that the West will hardly have more corn for feeding purposes this year than last year, although it is of better quality, as a whole, than then.

It is quite likely that there has been a loss of about 40 per cent. in the olive crop, all around, while in Spain it is a partial failure. Italy has a poor olive crop. It is, of course, too soon to tell about the various seed supplies for use in Europe through the season. But in a few weeks Europe's probable supplies of the oils that compete with cotton oil for consumption of soapmakers there will be determined. There is no question but that Italy will want more cotton oil than ordinarily because of its short olive crop.

It is clear, however, even now that if cotton oil in this country is kept down under 30c. for the refined through this season that a much larger business than that of last year will be done in it with the Continental markets.

And the outlook just now is, considering the extent of the cotton crop, the probable supplies and prices for the seed, and the new mills in operation, that the cotton oil production will be the largest this year yet made; therefore that a materially more than ordinary business will be needed in it.

It is a fact that just now the linseed, linseed oil and cotton oil are all declining in the English markets, and that the Continent is able to buy its soap materials at decidedly cheaper prices than at any other time lat-

terly; this makes an added reason for their unwillingness to buy cotton oil in this country in an extensive way.

A halt is noted to the late advancing tendency in the tallow markets of England, with subsidence of Continental demands upon them for the tallow, while the offers to sell tallow in England are larger; there were 1,300 casks offered at the London sale on Wednesday and only 500 casks sold.

This country's markets for tallow are becoming tamer, although no absolute change from the previous week, as yet, to prices at the West, yet New York is ½c. lower, with city, hhds., sold at 4½c.

It is true that cotton oil offers a favorable trading basis as against tallow with soapmakers; considering that the oil is now less than 4c. per pound, while tallow is 4½c. for city, hhds. But the soapmakers decline to buy any fat at present beyond pressing needs of it.

The pure lard market has substantially declined from the late bulging prices, because the receipts of hogs are larger while that cash demands for the lard are quieted after the late large buying of it. The fact that the stock of lard is largely reduced after the late enormous shipments of it to Europe cuts no figure for firmness; indeed, as we have often claimed, the smaller the stock of lard the more likelihood of bearish manifestations over its prices, particularly if the hog supplies are of material importance. Since there is less of a supply of lard to protect in value a better chance is had to lay down the packing at more reasonable prices, and by obtaining the hogs at more decided declines in their values. There may be, however, a little squeeze in October lard.

THE AMERICAN COTTON OIL CO.

CABLE ADDRESS "AMOOTAIL," NEW YORK

COTTONSEED PRODUCTS

OIL, CAKE, MEAL, LINTERS, ASHES, HULLS



GOLD MEDALS
AWARDED
CHICAGO, 1893
PARIS, 1900

AMERICAN COTTON OIL CO.

27 Beaver Street, New York City

GOLD MEDALS
AWARDED
BUFFALO, 1901
CHARLESTON, 1902

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PACKING Co.

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COTTON SEED OIL REFINERS.

COMPOUND LARD.

DALLAS, TEXAS.

There is no probability of prolonged activity in or strength to prices for pure lard and the compounds until the influences of the new cotton and corn crops are largely had, or until the hog supplies are better forward. Yet that some reactions are due for lard after the decided decline. The late activity in lard was because the supply was actually needed after a long time holding off the market by buyers, and when it was met the buyers did not anticipate wants extensively.

It is understood that some little seed arriving at the mills is out of condition, as heated, etc., and that more off grade oil is being made than had been expected. Nevertheless, there is a steady gain of the prime oil productions.

There is some talk that seed has been either had at or that its market was likely to reach practically in a few days \$14 per ton in some of the Southeast sections; nevertheless, some sales have been made above that, and as ranging up to \$18 per ton. There are reports that seed has been had in Texas at \$12.

The bleaching grade of the oil has declined at least $\frac{1}{2}$ c. in Chicago, where it is quoted, at this writing, at $27\frac{1}{2}$ c. in tanks. New York quotes the bleaching grade, in tanks, at about $27\frac{1}{2}$ c., but there are no buyers just now at those figures.

The New York market has declined from the top prices recently made to this writing about $2\frac{1}{2}$ c. per gallon, but is at this writing easy at the decline.

The sales in New York since our last review have been as follows, all prime yellow, at the close of the previous week: 1,400 bbls. November at $29\frac{1}{2}$ @ $29\frac{3}{4}$ c.; 3,600 bbls. January, $29\frac{3}{4}$ @ 30 c.; prices then, October, November and December, all $29\frac{3}{4}$ @ 30 c.; May, $30\frac{1}{4}$ @ 31 c.

On Monday sales 100 bbls. October at 30c.

100 bbls. December, $29\frac{3}{4}$ c.; 800 bbls. October, November and December, all at $29\frac{1}{2}$ c. Prices early: October and November, $29\frac{3}{4}$ @ 30 c.; December, $29\frac{1}{2}$ @ 30 c.; January, $29\frac{3}{4}$ @ $30\frac{1}{2}$ c.; May, 30 @ $30\frac{1}{4}$ c., and late in the day, October and November, $29\frac{1}{4}$ @ $29\frac{3}{4}$ c.; December, $29\frac{1}{4}$ @ $29\frac{1}{2}$ c.; January, $29\frac{1}{2}$ @ $29\frac{3}{4}$ c.; May, $29\frac{3}{4}$ @ $30\frac{1}{2}$ c.

On Tuesday sales 200 bbls. October, $29\frac{1}{4}$ c.; 100 bbls. do., 29c.; 400 bbls. January, $29\frac{1}{4}$ c.; 300 bbls. do., 29c.; 900 bbls. November, December and January, at $29\frac{1}{2}$ c.; prices early in the day, October, November and December, all at $29\frac{1}{4}$ @ $29\frac{3}{4}$ c.; May, $29\frac{3}{4}$ @ $30\frac{1}{2}$ c., and late October, November, December and January, all at $28\frac{3}{4}$ @ 29 c.; May, $29\frac{1}{4}$ @ $29\frac{3}{4}$ c.

On Wednesday further depression and a decline of $\frac{1}{2}$ @ $\frac{3}{4}$ c.; sales early in the day, 200 bbls. October, $28\frac{1}{4}$ c.; 2,500 bbls. do. at 28c.; 100 bbls. November, $28\frac{3}{4}$ c.; 100 bbls. May, $29\frac{1}{4}$ c.; prices then: October, 28 @ $28\frac{1}{2}$ c.; November, $28\frac{1}{4}$ @ $28\frac{3}{4}$ c.; December, $28\frac{1}{4}$ @ $28\frac{3}{4}$ c.; January, $28\frac{1}{2}$ @ 29 c.; May, $29\frac{1}{4}$ @ $29\frac{3}{4}$ c.

In the afternoon the sales were large, covering 850 bbls. October, $28\frac{1}{2}$ c.; 200 bbls. November, $28\frac{1}{2}$ c.; 100 bbls. do., $28\frac{1}{4}$ c.; fully 3,300 bbls. at 28c.; 1,400 bbls. December, $28\frac{1}{2}$ c.; 100 bbls. January, $28\frac{3}{4}$ c.; 100 bbls. May, $29\frac{1}{2}$ c.; prices closed then: October, $28\frac{1}{4}$ @ $28\frac{1}{2}$ c.; November, 28 @ $28\frac{1}{2}$ c.; December, $28\frac{1}{2}$ @ $28\frac{3}{4}$ c.; January, $28\frac{3}{4}$ @ 29 c.; May, $29\frac{1}{2}$ @ $29\frac{3}{4}$ c.

On Thursday the market continued easy. Sales early in the day in New York: 550 bbls. prime yellow, October, $28\frac{1}{4}$ c.; 600 bbls. November at $28\frac{1}{4}$ c.; 1,100 bbls. December, $28\frac{1}{2}$ c.; 300 bbls. do., $28\frac{1}{4}$ c.; prices then: October and November, $28\frac{1}{4}$ @ $28\frac{1}{2}$ c.; December, $28\frac{1}{4}$ @ $28\frac{3}{4}$ c.; January, $28\frac{1}{2}$ @ 29 c.; May, $29\frac{1}{2}$ @ $29\frac{3}{4}$ c. and late, 250 bbls. January, $28\frac{3}{4}$ c.; 250 bbls. March, 29c.; prices:

October, 28 @ $28\frac{1}{2}$ c.; November, 28 @ $28\frac{1}{2}$ c.; December, $28\frac{1}{4}$ @ $28\frac{1}{2}$ c.; January, $28\frac{1}{2}$ @ $28\frac{3}{4}$ c.; May, $29\frac{1}{2}$ @ $29\frac{3}{4}$ c.

(Friday's market on page 42.)

COTTONSEED OIL SITUATION.

(Special Letter to The National Provisioner from Aspegren & Co.)

New York, October 14.—In our last week's circular we pointed out the fact that European markets had not followed our advance and that this brought about the reaction. We also remarked that the demand from compound lard and soapmakers in this country was not large enough to bring same about.

The market this week has been characterized by more free offerings of crude oil, which induced liquidation on the part of holders of refined oil carried over from last year's crush. An enormous lot of oil has been thrown on the market during the past five days. The selling was started by a commission house here holding large quantities of oil in store and was followed up by another commission house who was supposed to be reselling oil bought some time ago at higher prices. Most of the oil was for October and November deliveries, although some December and January oil was also sold. Offerings were absorbed mostly by exporters who took the goods in 2,500 barrel lots. Naturally, the European consumers got pretty well filled up with this and their bids have since been reduced to about 28c. New York. On the decline considerable oil has been taken by soap makers out West; in the East there has also been a fair business in this direction.

More crude oil seems to be offering on the market and offers are coming on the market in a more liberal way, but there seems to be a place for every tank that is offered and buyers have readily taken up offerings for both October and November shipments at from $23\frac{1}{2}$ c. down to $22\frac{1}{2}$ c.

The market is at present in a very unsettled condition and it is possible that the enormous activity of the past few days will be followed by a lull in trading. Nobody, however, can foretell what will happen if further liquidation takes place on the same scale as last week.

Closing prices at noon to-day were as follows: Prime summer yellow cottonseed oil—October, $28\frac{1}{4}$ c. sales; November, $28\frac{1}{2}$ c. asked and $28\frac{1}{4}$ c. bid; December, $28\frac{1}{2}$ c. asked and $28\frac{1}{4}$ c. bid; January, 29c. asked and $28\frac{1}{2}$ c. bid; May, $29\frac{1}{4}$ c. asked and $29\frac{1}{2}$ c. bid.

We further quote: Prime winter yellow cottonseed oil, 32c.; prime summer white cottonseed oil, $31\frac{1}{2}$ c.; Hull quotation of cottonseed oil, 16s. 6d.; prime crude oil in tanks in Southeast, $22\frac{1}{4}$ c. to $22\frac{1}{2}$ c.; crude oil in tanks in Southeast, basis prime, 22c.

The Procter & Gamble Co.

Refiners of All Grades of

COTTONSEED OIL

Aurora, Prime Summer Yellow
Boreas, Prime Winter Yellow
Venus, Prime Summer White

Marigold Cooking Oil
Puritan Salad Oil
Jersey Butter Oil

Cable Address
Procter, Cincinnati, U. S. A.

Office: CINCINNATI, O.
Refinery: IVORYDALE, O.

COTTONSEED OIL EXPORTS

Exports of cottonseed oil for the week ending October 13 and since September 1, were as follows:

From New York.		
Port.	For Week. Bbls.	Since Sept. 1. Bbls.
Acajutla .....	..	6
Adelaide .....	..	47
Alexandria .....	..	445
Ancona .....	..	75
Antigua .....	..	76
Antwerp .....	..	375
Auckland .....	..	20
Barbados	7	41
Bordeaux .....	..	6
Bridgeton .....	..	67
Buenos Ayres .....	..	310
Cape Town	125	125
Cardiff .....	..	10
Cayenne	6	6
Christiania .....	..	51
Christiansand .....	..	25
Colon	22	81
Conakry	5	5
Copenhagen .....	..	400
Corinto	7	20
Dantzie .....	..	250
Demerara	130	182
Dunkirk .....	..	200
East London .....	..	35
Fort de France .....	..	418
Fremantle	58	58
Galatz .....	..	100
Genoa	100	1,400
Georgetown .....	..	74
Glasgow	50	50
Gothenberg .....	..	314
Guadaloup	153	451
Hamburg .....	..	760
Havana .....	..	93
Havre	300	5,779
Hong Kong .....	..	54
Hull	15	115
Kingston .....	..	285
Konigsberg .....	..	150
La Guaira .....	..	16
Leghorn	225	734
Liverpool .....	..	830
London .....	..	80
Macoris .....	..	418
Malmo .....	..	6
Malta .....	..	278
Manchester .....	..	70
Marseilles .....	..	1,450
Martinique .....	..	54
Massowah .....	..	19
Melbourne .....	..	164
Montevideo	175	626
Naples	150	600
Oran .....	..	956
Port au Prince .....	..	5
Port Limon	6	6
Port Natal .....	..	78
Port of Spain .....	..	15
Rio Janeiro .....	..	765
Rotterdam	125	1,855
St. Kitts .....	..	121
St. Thomas .....	..	8
Santiago .....	..	24
Santos	153	153
Sierra Leone .....	..	10
Southampton .....	..	250
Stavanger .....	..	35
Stettin .....	..	495
Stockholm .....	..	115
Sydney .....	..	356
Trieste .....	..	2,122
Trinidad	22	33
Valparaiso .....	..	228
Venice	1,150	4,000
Vera Cruz	4	37
Totals	2,988	30,470
From New Orleans.		
Antwerp .....	..	1,500
Bremen .....	..	253
Copenhagen .....	..	150
Genoa .....	..	50
Glasgow .....	..	1,486

Hamburg .....	..	2,475
Havana	60	60
Liverpool .....	..	800
London .....	..	560
Marseilles	50	2,100
Rotterdam	1,895	5,170
Trieste	1,150	3,250

Totals

From Galveston.		
Antwerp	100	1,980
Hamburg .....	..	50
Trieste .....	..	50
Totals	100	2,080

From Baltimore.		
Bremerhaven .....	..	200
Rotterdam .....	..	750
Totals .....	..	950

Recapitulation.		
From New York	2,988	30,470
From New Orleans	3,155	17,854
From Galveston	100	2,080
From Baltimore .....	..	950
Grand total, all ports ..	6,243	51,354

CABLE MARKETS**Marseilles.**

(By Cable to The National Provisioner.)

Marseilles, Oct. 13.—Cotton oil market weak; the only demand is for winter oil, which is selling at 52 $\frac{1}{2}$ to 52 $\frac{1}{2}$ francs. Prime summer yellow, neglected at 46 $\frac{1}{2}$ francs.

Trieste.

(By Cable to The National Provisioner.)

Trieste, Oct. 13.—Cotton oil market declining; good business; large sales of prime summer yellow at 48 $\frac{1}{2}$ francs to 46 $\frac{1}{2}$ francs, for October and November deliveries, and at 49 $\frac{1}{4}$ to 47 $\frac{1}{2}$ francs for January to June deliveries. Winter oil, small sales at 53 francs.

Hamburg.

(By Cable to The National Provisioner.)

Hamburg, Oct. 13.—Cotton oil market has considerable business at a decline from 38 $\frac{1}{4}$ marks to 37 marks for good off summer yellow.

Rotterdam.

(By Cable to The National Provisioner.)

Rotterdam, Oct. 13.—Cotton oil market quiet; small sales of butter oil at 24 to 25 florins and at 21 $\frac{1}{2}$ florins for prime summer yellow.

Liverpool.

(By Cable to The National Provisioner.)

Liverpool, Oct. 13.—Cotton oil market weak; sales prime summer yellow at 18 $\frac{1}{4}$ shillings, and off summer yellow at 17 $\frac{1}{4}$ shillings, c. i. f. English ports. Demand only moderate, and buyers shy.

**WANTED AND
FOR SALE
ADVERTISEMENTS**

PAGE 48

ASPEGREN & CO.,

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AND GREASES.

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Builders and Dealers in ENGINES, BOILERS, Tanks, Stacks, Standpipes, etc.; Bridge and Architectural Iron Work; Railroad, Cotton, Saw, Fertilizer, Oil and Ice MACHINERY and Supplies and Repairs; Shafting, Pulleys, Hangers, Leather and Rubber Belting and Hose; MILL SUPPLIES and TOOLS; Foundry, Machine, Boiler and Bridge Work, Capacity for 800 hands.

SOUTHERN MARKETS**New Orleans.**

(Special Wire to The National Provisioner.)

New Orleans, La., October 14.—Crude and refined oil are decidedly easier, with numerous offers for valley at 23c.; Texas, 21 $\frac{1}{2}$ c.; half a cent less is bid; tendency is lower. Cake and meal are also weaker; \$26 is bid for October shipment; \$25.75 for November shipment; \$25.25 for December shipment. Hulls, \$4, loose, New Orleans, and in light demand. Weather continues favorable for cotton.

Atlanta.

(Special Wire to The National Provisioner.)

Atlanta, Ga., October 14.—Crude oil is dull and declining; 22 $\frac{1}{4}$ c. was the best bid to-day; small lots were left unsold. Seed receipts are poor. Meal, Atlanta, 22 $\frac{1}{2}$ c.; southeast mill points, 21 $\frac{1}{2}$ c. and strong demand. Hulls average \$5, loose; fair demand and consumption.

Dallas.

(Special Wire to The National Provisioner.)

Dallas, Tex., October 14.—Oil market this week fairly active, with mills more inclined to sell until to-day. Market weaker; 21 $\frac{1}{2}$ c. was the best bid, with an occasional sale at 22c. Meal, 23 $\frac{1}{2}$ c. f. o. b. Galveston, first half of November. Hulls are unchanged.

TO ENFORCE FOOD LAWS.

The Tennessee State Board of Health will adopt systematic methods for the enforcement of State pure food regulations. Under this ruling a State laboratory has been established at Nashville for the analysis of all food products, and State Bacteriologist Leroy has been authorized to appoint assistants in other parts of the State.

HIDES AND SKINS.

(Daily Hide and Leather Market.)

Chicago.

PACKER HIDES.—The market continues steady to firm but advances that packers have been asking this week have not been paid and in some instances packers have accepted bids at the same rates at which previous sales were effected. The best grades of native steer cattle are holding steady but common cattle are lower which will prevent increased shipments of native cattle that can be held cheap as grass feed is plentiful everywhere in the West. The packers have been asking 13¼c. to sell October native steers, but being unsuccessful in obtaining this price they have left some natives go at the even price of 13c. One leading packer has sold 4,000 October native steers, partly ahead at 13c., and another leading packer has sold 2,000 native steers from St. Louis, running from late September to date salting at 13c. On account of the large receipts of cattle, tanners are not expecting any advance to occur in October Texas or Colorado or native cows. Some October Texas are being offered at 13, 12 and 11c. for the three weights, but no further sales of this variety have been made. A sale of 4 cars of butt brands has been made at 11½c. f. o. b. Missouri River for shipment to California. October Colorados are being offered at 11½c. to 11¼c., with buyers apparently not interested at over the inside price. Union crop leather tanners are declining to pay 13¾c. for the branded cows that are offered from Northern points which are of heavy average. Tanners are declining to pay the advance asked on native cows, and the market is slow for light cows at over 11¼c. or heavy cows at over 11½c., and offerings of both weights have increased somewhat. One packer has sold two cars of light native cows at 11¼c., but no sales have been made of heavy cows, which are quotable as per last sales at 11½c. No sales have been made of bulls.

COUNTRY HIDES.—The market is firm with small stocks on hand here. Regular 40 to 60 lb. buffs continue to be firmly held at 10¼ and 9¼c., but no sales have as yet been confirmed at these prices with the exception of some special weight running 50 to 60 lbs. There are some orders here for buffs at 10½ and 9½c., and a bid of 10½c. for all No. 1 buffs has been declined. There are few No. 2 buffs obtainable, and with considerable demand for these some fine fractions have been made on sales. One car of all No. 2 buffs has been sold for 9 4-10c. to go East and one large buyer is freely bidding 9½c. for these. Some large operators are bidding 10 and 9c. f. o. b. at Iowa and Minn. points. Heavy cows are in very small supply, and if here no doubt could be sold at 10¼ and 9¼c., but some dealers are beginning to talk 10½ and 9½c. for heavy cows. Extremes are unchanged with a good demand for best lots at 10½ and 9½c. Dealers continue firm in their views on heavy steers, with some holding at 11c. selected, and none obtainable at present at under 10¼c. Bulls are held at 8½ and 7½c.

CALFSKINS.—Supplies are so light in the hands of dealers that few sales of any size

are possible, and the market continues on a very strong basis, with no transactions of account reported. Chicago city skins are not obtainable at under 14c., and it is not known that there are any lots offered except for future shipment. Outside cities are in a similar position with the market strong on these at 13¾ to 14c. Countries are selling freely at 13½c. wherever lots are obtainable. Good lots of kip are firm at 12c., and deacons continue quotable at 70 to 72½c., and 90 to 92½c., outside prices asked.

SHEEPSKINS.—The market continues to rule very strong, especially on prime Chicago packer pelts, and some holders are still refusing to sell late take-off lambs and sheep at under 1.22½. No large sales of packer skins have as yet been reported at over 1.10, but some small lots as previously noted brought 1.20 for lambs alone. Country skins continue in as scant supply as ever, and desirable lots are kept closely picked up at 90c. to \$1. Last sales of Bridgeports were at 95c. with 97½c. now asked.

New York.

DRY HIDES.—The market is firm but no higher, and importers realize that it will be difficult to secure any more than present rates. Sales have been made of about 2,000 Puerto Cabellos, etc., at 20½c., and 500 Vera Cruz at 19½c.

CITY SLAUGHTER HIDES.—The market is well cleaned up and firm, but with no sales reported. Sales of cows at 11c. are not confirmed, but it is known that bids of 11c. have been made for heavy cows which packers refuse to take unless light weights are included. One packer is offering some butt brands and Colorados at 11½c., but has not effected sales. One packer is asking 9¼c. for bulls, but cannot interest buyers.

COUNTRY HIDES AND CALFSKINS.—The market continues strong on hides with light stocks as yet in dealers hands. Two cars of New York State cows have been offered here at 9¾c. flat and remain unsold, but some dealers want 10c. flat for straight car lots of cows. Calfskins are as strong as ever. Some small lots of country skins have been picked up at \$1.02½, \$1.32½ and \$1.02½, but straight car lots are held at 2½ to 5c. above these prices and are somewhat higher than most buyer's views. New York City skins are in very light supply, and small receipt and considered firm at \$1.20, \$1.50 and \$1.72½ for best collections.

Leather Conditions.

The situation in union sole continues strong. There is very little light weight leather obtainable in the Boston market, and some tannage cannot be obtained in light weights until November. One large tanner is offering some mixed lots of light union backs, containing cut hides at 31c. for firsts and 30c. for seconds, and is asking the price on seconds to drive the trade more to firsts. Prime tannage of light weights are strong at 32c. for firsts and 30c. for seconds, and one tanner is reported to be asking 1c. more. Heavy weight union backs are rather slow and in fair supply. One large Western tanner is closely sold up on all grades of middle and over plump saught hemlock sides, and is holding these at top prices and refusing to sell car lots at under list rates for small parcels. There is some demand from shoe manufacturers for New York tannage of Texas oak sides on the basis of 25c. tannery run for the best, but local jobbers still continue out of the market. There is an improvement in the shoe trade, as orders are now being placed for sizable lots for January, February and March delivery. The better grades of footwear have been selling quite freely this week.

MORGAN A PACKER OF FISH.

It is said up in Spokane, Wash., that J. P. Morgan and Richard Delasfield, along with some other parties, will buy the entire assets of the Pacific Packing & Navigation Company. They are the principal stockholders of the concern. The company is to be reorganized and run on a new basis. This is the biggest salmon cannery in the world. The company is capitalized at \$25,000,000. It operates 28 large fish canning factories and owns a fleet of 50 vessels, mostly fishing ships.

It was thought at one time that the Pacific Packing & Navigation Company would branch out into the meat canning line in the Northwest, and also go into the meat business generally. There has been less talk of this kind lately. The company's headquarters are now at Spokane, Wash.

CARROLL S. PAGE, HYDE PARK, VT.

Green Calfskins, Country Hides, Sheep
Pelts, Tallow, Bones.

Wool Puller and
Tallow
Renderer

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HOUSE BUSINESS.

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PROVISIONER
LABORATORY

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Branch: Floor A
Produce Exchange



CHICAGO SECTION



Board of Trade memberships are selling at \$3,375 net to the buyer.

Crofts & Reed, Nos. 840-850 Austin avenue, will build a \$25,000 addition to their soap factory.

Swift and Company's sales of fresh beef in Chicago for the week ending October 8 averaged \$.0612 per pound.

Senator Tillman was in Chicago recently, and from all accounts he believes in the old proverb, "If you can't talk, make signs."

Nothing goes to waste in a packinghouse, which probably accounts for the rumor that some of the big packers are contributing sinews to the Republican campaign fund.

The Board of Trade and Stock Exchange were closed Saturday in honor of "Chicago Day" at the St. Louis Exposition. The banks and most of the brokerage houses were, however, open.

Chicago did a big sheep business last week. The disposition of the run included: Packers, 70,999; city butchers, 7,102; shippers, 12,593; exporters, 2,311; feeders, 65,967; total, 156,972.

Swift & Company's stock was the feature on the local exchange several days recently, advancing to the record price of the year. Several hundred shares sold at 110@111, with only a limited amount of stock offered.

Shipments of meats from Chicago last week were about 165,000 pieces of hams, 71,000 pieces of shoulders and 225,000 pieces of sides. For the corresponding time last year the shipments were about 212,000 pieces of hams, 66,000 pieces of shoulders and 294,000 pieces of sides.

H. T. Jennison, who was Weir & Craig's "yards" man, found it too hot for him trying to sell Packingtown, so he left for New Orleans, where he says it's a whole lot cooler and they don't know what "price prohibitive" means. He says any man who can travel that beat need never fear yellow fever and such trifles.

John E. Tangney confessed last week in court that he had held up the cashier of Morris & Co.'s wholesale meat house at Blue Island on the night of July 8 and secured \$996 in checks and nearly \$400 in cash. Assistant State's Attorney Crowe demanded the same life sentence that has been meted twice before to criminals guilty of highway robbery.

An interest close to the Moore Bros. says there is to be no reorganization of the American Can Company—at least not now. He attributes the recent buying of the shares to merit of the property, according to the Drovers' Journal, pointing out the fact that 5 per cent. has already been paid this year in dividends on the preferred stock and that the rate is apt to be raised at any time.

Sir Thomas J. Lipton is the plaintiff in a suit for injunction filed in the United States Circuit Court against Mrs. Isaac M. Pruzam and Isaac Cordish for alleged infringement upon the trade mark on boxes of his wares. He also says that they be required to account to him for all the profits gained by its use. Sir Thomas says he has lost money by reason of their action, but is unable to say exactly how much. He thinks that the sum total will be about \$2,000.

W. J. Mullaley, the American Can Company's "yards" man, says that business since the settlement of the strike is practically up to normal, all the houses being busy canning. His statement is borne out by the fact that canning cattle have been in good demand right along. Mullaley is another living proof (changing the subject) of what the yards do to a salesman. While still a young fellow, his hair is getting white very fast, though it hasn't begun to slip yet.

Fred W. Wilder, the genial general superintendent of the American Agricultural Packing Co., is always modest about his numerous accomplishments. His friends, however, exploit them for him. Once upon a time, on a shooting trip up Trude Lake way, Fred spied a big buck and proceeded to bag him. He raised his rifle, took deliberate aim and pulled the trigger. Result: a fine doe rolled down the bank into the water a quarter of a mile away from the buck. The boys say it was the greatest inshoot ever put over a plate.

The Rev. James Poole, who recently made a tour through Northwestern Iowa and South Dakota, writes most interestingly thereof in the Livestock World. Among other things, he says they have quit raising hell throughout that country and switched to raising babies, which he thinks is a good swap, and has been figuring quite a lot since whether or not to go and take up permanent residence there. He also says there's all kinds of corn,

grain, hay, cattle, hogs, sheep, chickens, etc.—but kids! Why, he never saw so many, and all prime, too!

The Stock Yards Saving Bank left its former headquarters in the Exchange building, and has taken possession of its new and attractive home in a one-story modern pressed brick building at Forty-first and Halsted streets, adjoining the Transit house. The new building was designed and built especially for the Stock Yards Saving Bank. Three rooms are provided for the use of women. The vaults are burglar and fire proof. The officers are S. R. Flynn, president; J. A. Spoor, vice-president, and T. J. Fitzgerald, cashier.

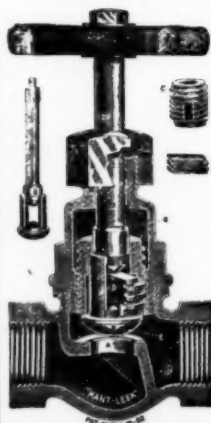
Frank R. Gifford, who asserts he lost many positions in the stock yards through being harassed by money loaners, has appealed to the courts for relief from the "loan sharks." Judge Dunne has issued injunctions forbidding Charles E. Gross and S. M. Grimes from pressing their alleged claim against Gifford. Two years ago three of Gifford's children died, and payment of their funeral expenses made necessary the borrowing of money. He says he secured \$50 from Gross and \$25 from Grimes. He declares he has paid Grimes \$26, but that still \$35 is demanded on the loan of \$25, while Gross, already paid \$45, is demanding \$190 additional on the \$50 loan.

Echoes of the strike are still heard and some are tragic. Central detectives have

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VALVE



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HIGHEST REFERENCES.

been asked to search for E. W. Brace, who has disappeared. He was employed by Armour & Co. up to the time of the settlement of the strike. Then he is said to have dropped out of sight. Brace was 22 years old, and came to Chicago from Lansing, Mich. His parents have asked the police to assist them in their search for the young man, fearing that he has been the victim of violence. It is said that Brace, with other non-union employees at the yards, was repeatedly threatened by strikers and the parents declare that it is their belief that he has been attacked and perhaps killed.

Another war is on at the Stock Yards, one that threatens to annihilate every vestige of trade union strength that remained after the recent disastrous strike. The unions are now fighting each other, and the socialistic American Labor Union has invaded the district, waging war on the American Federation of Labor, with which the unions are affiliated. The American Labor Union officials arranged a series of mass meetings for packinghouse employees. These meetings were for the purpose of organizing new unions on the industrial system of organization, as opposed to the trade autonomy idea of the American Federation of Labor.

Already the war of the depleted organizations has resulted in great friction and the Sausage Makers' Union has seceded from the Amalgamated Meat Cutters and Butcher Workmen's union, with the declaration that it will never again affiliate with it as long as President Michael Donnelly and Vice-President C. E. Schmidt have anything to do with directing the affairs of the organization. The socialist American Labor Union leaders from the West are endeavoring to charter the secessionists and they will probably succeed. In the circulars that are being distributed through the stock yards plants by the American Labor Union announcing the mass meetings the workers are requested to "come and help form a solid, determined union, industrially organized."

John Floersch, secretary of the Packing Trades' Council, resigned his position because he is a sausage maker and his union seceded. The council refused to accept the resignation. Floersch asked that he be given the charter and he will endeavor to reorganize the sausage makers under the amalgamated. If he has any success there will be rival unions and the general prospect is that all the organizations will be divided against each other.

OLD LAW HITS STRIKERS.

The Chicago Employers' Association last week, through Attorney Dudley Taylor, brought into operation a long-dormant law by which it is believed picketing and strike violence can be prevented without resort to injunctions. It is "an act to prohibit any person from obstructing the regular operation and conduct of the business of any railroad company or other corporation, firm or individual."

The law, which was put upon the statute books of Illinois in 1877, was applied last week for the first time in connection with violence growing out of trades unionism

when three members of the Janitors' Union were arraigned on a charge of attacking a non-union janitor in a downtown office. It seems peculiar that it should have lain so long undiscovered, when so many instances have occurred where it would have been so very timely.

LIVESTOCK REPORTS.

Following are additional reports of receipts and disposition of livestock at centres for the month of September and nine months ending September 30, 1904, as compared with the same periods in 1903:

Chicago.				
Receipts.				
	Cattle.	Hogs.	Sheep.	
Sept., 1904.....	277,068	356,264	466,951	
Sept., 1903.....	341,371	465,403	555,161	
Jan.-Sept., 1904.....	2,274,900	5,251,410	3,189,174	
Jan.-Sept., 1903.....	2,508,286	5,351,922	3,096,989	

Shipments.				
Sept., 1904.....	126,341	98,076	239,701	
Sept., 1903.....	118,922	98,485	196,755	
Jan.-Sept., 1904.....	954,403	1,332,900	946,292	
Jan.-Sept., 1903.....	895,381	935,989	505,513	

Consumed in Chicago.				
Sept., 1904.....	150,727	258,188	227,250	
Sept., 1903.....	222,449	366,918	358,406	
Jan.-Sept., 1904.....	1,320,437	3,918,510	2,242,882	
Jan.-Sept., 1903.....	1,612,905	4,415,933	2,591,476	

Average weight of hogs: September, 1904, 244 lbs.; September, 1903, 257 lbs.

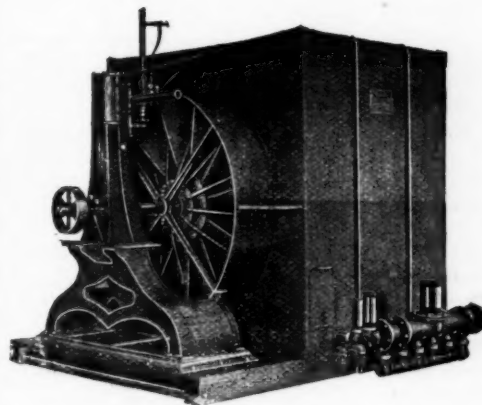
St. Paul.				
Receipts.				
	Cattle.	Hogs.	Sheep.	
Sept., 1904.....	47,871	31,786	87,946	
Sept., 1903.....	50,507	30,343	91,305	
Jan.-Sept., 1904.....	210,021	624,068	416,191	
Jan.-Sept., 1903.....	201,336	499,738	348,576	

Shipments.				
Sept., 1904.....	36,033	359	68,871	
Sept., 1903.....	42,903	838	68,309	
Jan.-Sept., 1904.....	142,474	59,497	349,244	
Jan.-Sept., 1903.....	135,580	22,351	275,988	

Consumed in St. Paul.				
Sept., 1904.....	13,247	31,601	15,394	
Jan.-Sept., 1904.....	61,258	620,270	144,846	

Average weight of hogs: September, 1904, 230 lbs.

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Each problem submitted to us is given careful study, all conditions considered and the Dryer designed accordingly. Successful operation from the start is thus assured.

Fans and Blowers for all purposes.

American Blower Co., Detroit

BEATS A BUTTER FACTORY.

Juliana de Kol will go from California to St. Louis in a special car to attend the National Butter Makers Association's Convention in St. Louis this week. She will have two attendants, and special quarters have been provided for her in the convention hall. Juliana is a cow, and her 5,866 pounds of milk and 283 pounds 13 ounces of butter, 80 per cent. fat, in 100 days, have broken the two-year-old record.

YOU WANT

To sell some surplus machinery or equipment for which you have no present use

HE WANTS

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Via PAGE 48 of THE NATIONAL PROVISIONER

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FINE BURLAP—for covering bins and boxes.
BURLAP and BAGS—for any purpose.

W. J. JOHNSTON, Manufacturer & Importer
183 Jackson Boulevard, Chicago.

CHICAGO PROVISION LETTER.

(Special to The National Provisioner from C. D. Forsyth & Co.)

Chicago, October 13.—We quote to-day's market as follows: Green hams, 10@12 ave., 9½; 12@14 ave., 9¼; 14@16 ave., 9; 18@20 ave., 8. Green picnics, 5@6 ave., 6¾; 6@8 ave., 6¾; 8@10 ave., 6¾; 10@12 ave., 6½. Green N. Y. shoulders, 10@12 ave., 7¼; 12@14 ave., 7¼; 14@16 ave., 7¼; 16@18 ave., 7¼. Green clear bellies, 8@10 ave., 10; 10@12 ave., 9½; No. 1 S. P. hams, 8@10 ave., 10; 10@12 ave., 9½; 12@14 ave., 9¼; 14@16 ave., 9; 18@20 ave., 8. No. 2 S. P. hams, 10@12 ave., 9; 12@14 ave., 8¾; 14@16 ave., 8¾. No. 1 S. P. skinned hams, 10@18 ave., 10½; 18@20 ave., 10½; 20@22 ave., 10½; 22@24 ave., 10½; 24@26 ave., 10; 26@28 ave., 10. No. 1 S. P. picnics, 5@6 ave., 7; 6@8 ave., 6¾; 7@9 ave., 6¾; 8@10 ave., 6¾; 10@12 ave., 6¾. No. 1 S. P. N. Y. shoulders, 8@10 ave., 7½; 10@12 ave., 7½. S. P. clear bellies, 8@10 ave., 9¾; 10@12 ave., 9¾.

CHICAGO PROVISION MARKET

RANGE OF PRICES

SATURDAY, OCT. 8, 1904.

Board of Trade closed. "Chicago Day" at World's Fair.

MONDAY, OCT. 10, 1904.

LARD—(Per 100 lbs.)—				
January	7.42	7.37	7.40	
May	7.47	7.40	7.40	
RIBS—(Boxed 25c. more than loose)—				
January	6.75	6.65	6.67	
May	6.82	6.72	6.72	
PORK—(Per barrel)—				
January	12.99	12.70	12.75	
May	12.87	12.70	12.72	

TUESDAY, OCT. 11, 1904.

LARD—(Per 100 lbs.)—				
January	7.37	7.30	7.40	
May	7.40	7.35	7.45	
RIBS—(Boxed 25c. more than loose)—				
January	6.62	6.57	6.65	
May	6.67	6.62	6.72	
PORK—(Per barrel)—				
January	12.57	12.55	12.75	
May	12.60	12.60	12.72	

WEDNESDAY, OCT. 12, 1904.

LARD—(Per 100 lbs.)—				
January	7.32	7.15	7.22	
May	7.32	7.17	7.25	
RIBS—(Boxed 25c. more than loose)—				
January	6.60	6.50	6.50	
May	6.60	6.50	6.57	
PORK—(Per barrel)—				
January	12.57	12.30	12.42	
May	12.50	12.32	12.40	

THURSDAY, OCT. 13, 1904.

LARD—(Per 100 lbs.)—				
January	7.25	7.22	7.25	
May	7.27	7.27	7.30	
RIBS—(Boxed 25c. more than loose)—				
January	6.50	6.55	6.50	
May	6.60	6.57	6.57	
PORK—(Per barrel)—				
January	12.45	12.35	12.40	
May	12.37	12.32	12.35	

FRIDAY, OCT. 14, 1904.

LARD—(Per 100 lbs.)—				
January	7.22	7.15	7.17	
May	7.27	7.22	7.22	
RIBS—(Boxed 25c. more than loose)—				
January	6.47	6.40	6.42	
May	6.57	6.50	6.52	
PORK—(Per barrel)—				
January	12.40	12.25	12.27	
May	12.25	12.15	12.20	

SEE THE LIST OF
BARGAINS
ON PAGE 48

CHICAGO LIVE STOCK

RECEIPTS.

	Cattle.	Calves.	Hogs.	Sheep.
Monday, Oct. 3.....	25,833	968	24,979	49,998
Tuesday, Oct. 4.....	9,045	833	14,905	29,534
Wednesday, Oct. 5.....	19,812	714	17,044	31,320
Thursday, Oct. 6.....	11,947	717	15,957	26,571
Friday, Oct. 7.....	3,940	170	14,174	11,703
Saturday, Oct. 8.....	623	177	8,730	3,275

Totals this week.....	71,302	3,579	95,790	152,401
Previous week.....	83,989	5,378	84,665	126,119
Cor. week 1903.....	79,467	5,996	97,097	133,754
Cor. week 1902.....	63,392	3,087	104,784	141,778

SHIPMENTS.

Monday, Oct. 3.....	5,140	104	5,045	12,224
Tuesday, Oct. 4.....	4,133	61	2,530	11,850
Wednesday, Oct. 5.....	5,809	26	3,387	14,879
Thursday, Oct. 6.....	7,688	97	3,021	19,438
Friday, Oct. 7.....	4,137	150	2,685	22,796
Saturday, Oct. 8.....	673	117	659	6,411

Totals this week.....	27,580	555	17,327	84,538
Previous week.....	43,001	1,207	16,074	67,040
Cor. week 1903.....	31,585	590	18,121	48,646
Cor. week 1902.....	22,388	895	15,306	47,430

Combined receipts of hogs at eleven markets for week ending Oct. 8, 1904..... 319,000
 Week ago..... 293,000
 Year ago..... 307,000
 Two years ago..... 306,000

Total receipts for year to date, 16,292,000, against 16,656,000 year ago, 16,417,000 two years ago.

Receipts at six points (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, Sioux City), as follows:

	Cattle.	Hogs.	Sheep.
Week ending Oct. 8.....	198,900	247,600	321,500
Week ago.....	246,600	223,000	322,000
Year ago.....	224,500	210,900	283,300
Two years ago.....	213,300	234,800	315,800

CHICAGO HOG SLAUGHTER.

Chicago packers slaughtered hogs during week ending Oct. 8 as follows:

Armour & Co.....	20,000
Anglo-American.....	9,600
Continental.....	3,000
Swift & Company.....	16,400
Hammond & Co.....	2,900
Morris & Co.....	5,600
Boyd-Lunham & Co.....	2,500
S. & S.....	4,700
H. Boore & Co.....	4,700
Robert & Oake.....	1,600
Other packers.....	11,200

Total.....	77,500
Left over.....	2,500
Week ago.....	73,800
Year ago.....	85,100
Two years ago.....	92,200
Three years ago.....	103,900

AVERAGE PRICE OF HOGS.

Week ending Oct. 8.....	\$5.90
Previous week.....	5.95
Year ago.....	5.45
Two years ago.....	7.12
Three years ago.....	6.25

Estimated receipts of live stock week ending October 15:

Cattle.....	80,000
Hogs.....	106,000
Sheep.....	150,000

AVERAGE PRICE OF GOOD BEEF CATTLE.

Week ending Oct. 8.....	\$5.25
Previous week.....	5.15
Three weeks ago.....	5.20
Year ago.....	4.85
Two years ago.....	6.30

CATTLE.

Beaves, choice to prime.....	\$6.00@6.60
Steers, good to choice, 1,200 to 1,500 lbs.....	5.50@6.10
Steers, fair to good exporters.....	5.25@5.75
Steers, medium beef.....	4.30@5.00
Steers, inferior and plain.....	2.80@3.70
Steers, grass Texas.....	2.25@4.15
Steers, fed Texas.....	3.75@5.75
Steers, western range.....	3.50@5.50
Cows and heifers, fair to good.....	2.70@4.00
Cows and heifers, good to fancy.....	3.80@4.60
Cows, good cutting to fair beef.....	2.80@3.50
Cows, common to good canners.....	1.00@2.40
Cows, grass Texas.....	2.25@4.15
Stockers and feeders, poor to fair.....	2.10@3.15
Stockers and feeders, good to choice.....	3.35@3.95
Bulls, poor to choice.....	1.75@4.35
Calves, common to fair.....	2.75@5.00
Calves, good to choice.....	5.00@7.65

HOGS.

Heavy shippers, good to choice.....	\$5.90@6.20
Butcher weights, good to choice.....	5.90@6.20
Heavy packing, rough to fair.....	5.50@5.85
Heavy mixed, plain to good.....	5.70@5.90
Assorted light, 150 to 180 lbs.....	5.95@6.10
Good to choice, 185 to 200 lbs.....	5.90@6.10
Pigs, poor to choice, 60 to 130 lbs.....	4.50@6.00

SHEEP.

Wethers, good to prime, mixed.....	\$4.15@4.35
Mixed lots, fair to good.....	3.15@3.70
Wethers, western grass, fair to prime.....	3.90@4.00
Ewes, fair to fancy.....	3.25@4.00
Ewes, plain to good breeding.....	3.20@4.10
Culls, bucks and scallawags.....	2.00@3.00
Yearlings, good to prime.....	4.00@4.30
Yearlings, poor to fair.....	3.50@3.85
Lambs, fat western range.....	4.80@5.45
Lambs, native, good to prime.....	5.30@5.90
Lambs, native, poor to fair.....	3.25@5.20
Lambs, range feeders.....	4.10@4.65

CHICAGO RETAIL FRESH MEATS

NOTE.—It is difficult to quote flat retail figures applicable to the whole of the city, every market having a practically different scale according to location, class and volume of trade, etc.

Beef.

Native Rib Roasts.....	10@12
" Sirloin Steaks.....	12@15
" Porterhouse Steaks.....	20@25
" Pot Roasts.....	8 @10
Rib Roasts from light cattle.....	10
Beef Steaks.....	5@8
Boneless Corned Briskets.....	5@8
Corned Rump Native.....	2@10
" Ribs.....	6
" Flanks.....	5
Round Steaks.....	10@12½
Roasts.....	10@12½
Shoulder Steaks.....	10@12½
" Roasts.....	10@12½
" Neck End Trimmed.....	7
Roiled Roast.....	10@12½

Lamb.

Hind Quarters.....	12
Fore ".....	8
Legs.....	14
Stew.....	6
Shoulders.....	8
Chops, Rib and Loin.....	18

Mutton.

Legs.....	10
Stew.....	4
Shoulders.....	8
Hind Quarters.....	9
Fore ".....	8
Rib and Loin Chops.....	14

Pork.

Pork Loin.....	14
" Chops.....	14
" Tenders.....	13
" Butts.....	10
Spare Ribs.....	8
Blades.....	6
Hocks.....	7
Pigs Heads.....	5
Leaf Lard.....	8

Veal.

Hind Quarters.....	12½
Fore ".....	10
Legs.....	14
Breasts.....	10@12
Shoulders.....	10
Cutlets.....	20

Butchers' Offal.

Tallow.....	3@3½
Mixed Bone and Tallow.....	3@3
Calveskins, 8 to 15 lb.....	10@12½
Calveskins, under 8 lb. each.....	5@8

SOUTH WATER STREET MARKETS

Live Poultry.

Turkeys.....Old, 10@12.....	Young, 13@14
Chickens.....	10@10½
Hens.....	10
Roosters.....	7½
Springs.....	11
Ducks.....	10@10½
Geese.....	8@9

Iced Dressed Poultry.

Turkeys, Mixed weights.....	11
Chickens.....	10 @12
Springs.....	10 @10½
Ducks.....	10@12
Geese.....	8@9

Veal.

Choice.....	8 @9
Heavy..... 85 to 120 lbs.....	7 @8
Medium..... 65 to 80 lbs.....	6 @7
Small..... 50 to 60 lbs.....	5 @6
Coarse..... small to heavy.....	4 @5

Butter.

Creamery, Extras.....	20@26
" Firsts.....	17½@18
" Seconds.....	14 @15
Dairies, Choice.....	17
" Firsts.....	14
" Ladies.....	13
" Packing stock.....	13

Eggs.

Extras.....	23
Prime firsts.....	20
Firsts.....	19
Fresh, at mark, cases inc.....	19½@19¾

MARKET PRICES

CHICAGO.

WHOLESALE FRESH MEATS.

Carcass Beef.	
Western Cows.....	4 1/2 @ 5
Native Cows.....	5 1/2 @ 5 1/2
Western Steers.....	5 1/2 @ 5 1/2
Good Native Steers.....	5 1/2 @ 5 1/2
Native Steers, Medium.....	5 1/2 @ 5 1/2
Heifers, Good.....	5 1/2 @ 5 1/2
Heifers, Medium.....	5 1/2 @ 5 1/2
Hindquarters.....	1 1/2 c. over straight Beef
Forequarters.....	1 1/2 c. under

Beef Cuts.	
Steer Chucks.....	5 @ 5 1/2
Cow Chucks.....	3 1/2 @ 4 1/2
Boneless chucks.....	4 @ 4 1/2
Medium Plates.....	2 1/2 @ 3
Steer Plates.....	2 1/2 @ 3
Cow Rounds.....	6 @ 7 1/2
Steer Rounds.....	7 @ 7 1/2
Cow Loins, Common.....	6 @ 7 1/2
Cow Loins, Medium.....	6 @ 7 1/2
Cow Loins, Good.....	6 @ 7 1/2
Steer Loins, Light.....	6 @ 7 1/2
Steer Loins, Heavy.....	6 @ 7 1/2
Beef Tenderloins, No. 1.....	16 @ 12 1/2
Beef Tenderloins, No. 2.....	16 @ 12 1/2
Strip Loins.....	16 @ 12 1/2
Shoulder Butts.....	16 @ 12 1/2
Shoulder Clods.....	16 @ 12 1/2
Rolls.....	16 @ 12 1/2
Rump Butts.....	16 @ 12 1/2
Trimming.....	16 @ 12 1/2
Shank.....	16 @ 12 1/2
Cow Ribs, heavy.....	16 @ 12 1/2
Cow Ribs, Common Light.....	16 @ 12 1/2
Steer Ribs, Light.....	16 @ 12 1/2
Steer Ribs, Heavy.....	16 @ 12 1/2
Loins Ends, steer-native.....	16 @ 12 1/2
Loins Ends, cow.....	16 @ 12 1/2
Hanging Tenderloins.....	16 @ 12 1/2
Flank Steak.....	16 @ 12 1/2

Beef Offal.	
Livers.....	2 1/2 @ 3
Hearts.....	2 1/2 @ 3
Tongues.....	2 1/2 @ 3
Sweetbreads.....	2 1/2 @ 3
Ox Tails, each.....	2 1/2 @ 3
Fresh Tripe—plain.....	2 1/2 @ 3
H. O.....	2 1/2 @ 3
Kidneys.....	2 1/2 @ 3
Brains.....	2 1/2 @ 3

Veal.	
Heavy Carcass Veal.....	6 @ 7 1/2
Light Carcass.....	6 @ 7 1/2
Medium Carcass.....	6 @ 7 1/2
Good Carcass.....	6 @ 7 1/2
Good Saddle.....	6 @ 7 1/2
Good Saddle.....	6 @ 7 1/2
Good Racks.....	6 @ 7 1/2

Veal Offal.	
Brains.....	2 1/2 @ 3
Sweetbreads.....	2 1/2 @ 3
Plucks.....	2 1/2 @ 3
Heads, each.....	2 1/2 @ 3

Lamb.	
Medium Caul.....	6 1/2 @ 7
Good Caul.....	6 1/2 @ 7
Round Dressed Lamb.....	10 @ 10 1/2
Saddle Caul.....	10 1/2 @ 11
R. D. Lamb Saddle.....	10 1/2 @ 11
Caul Lamb Racks.....	7 @ 7 1/2
R. D. Lamb Racks.....	7 @ 7 1/2
Lamb Fries, per pair.....	6 @ 7
Lamb Tongues, each.....	6 @ 7
Kidneys, each.....	6 @ 7

Mutton.	
Medium Sheep.....	6 @ 7
Good Sheep.....	7 @ 7 1/2
Medium Saddle.....	7 1/2 @ 8
Good Saddle.....	8 1/2 @ 9
Medium Racks.....	8 1/2 @ 9
Good Racks.....	9 @ 9 1/2
Mutton Legs.....	8 1/2 @ 9
Mutton Steer.....	4 @ 4 1/2
Loins.....	4 @ 4 1/2
Tongues, each.....	4 @ 4 1/2
Heads, each.....	4 @ 4 1/2

Fresh Pork, Etc.	
Dressed Hogs.....	6 @ 7
Pork Loins.....	6 @ 7
Leaf Lard.....	6 @ 7
Tenderloins.....	6 @ 7
Spare Ribs.....	6 @ 7
Butts.....	6 @ 7
Hocks.....	6 @ 7
Trimming.....	6 @ 7
Tails.....	6 @ 7
Snouts.....	6 @ 7
Pigs' Feet.....	6 @ 7
Pigs' Heads.....	6 @ 7
Blade Bones.....	6 @ 7
Chest Meat.....	6 @ 7
Hog Plucks.....	6 @ 7
Neck Bones.....	6 @ 7
Skinny Shoulders.....	6 @ 7
Pork Hearts.....	6 @ 7
Kidneys.....	6 @ 7
Tongues.....	6 @ 7
Slip Bones.....	6 @ 7
Tail.....	6 @ 7
Brains.....	6 @ 7
Backfat.....	6 @ 7
Hams.....	11 1/2 @ 12 1/2
Cans.....	6 @ 7
Shoulders.....	6 @ 7
Belies.....	6 @ 7

SAUSAGE.

Colth Bologna.....	6 @ 5 1/2
Bologna, large, long, round and cloth.....	6 @ 5 1/2
Choice Bologna.....	6 @ 5 1/2
Viennas.....	6 @ 5 1/2
Frankfurts.....	6 @ 5 1/2
Blood, Liver, and Headcheese.....	6 @ 5 1/2
Tongue.....	6 @ 5 1/2
White Tongue.....	6 @ 5 1/2
Minced Ham.....	6 @ 5 1/2
Prepared Ham.....	6 @ 5 1/2
New England Ham.....	6 @ 5 1/2
Compressed Ham.....	6 @ 5 1/2
Large Compressed Ham.....	6 @ 5 1/2
Berliner Ham.....	6 @ 5 1/2
Boneless Ham.....	6 @ 5 1/2
Oxford Ham.....	6 @ 5 1/2
Polish Sausage.....	6 @ 5 1/2
Leona, Garlic, Knoblauch.....	6 @ 5 1/2
Smoked Pork.....	6 @ 5 1/2
Veal Ham.....	6 @ 5 1/2
Farm Sausage.....	6 @ 5 1/2
Pork Sausage, bulk or link.....	6 @ 5 1/2
Pork Sausage, short link.....	6 @ 5 1/2
Special Prepared Ham.....	6 @ 5 1/2
Boneless Pigs' Feet.....	6 @ 5 1/2
Ham Bologna.....	6 @ 5 1/2
Special Compressed Ham.....	6 @ 5 1/2
Boston Roll.....	6 @ 5 1/2
Cubana Sausage.....	6 @ 5 1/2

Summer Sausage.

Supreme Summer, H. C., New Medium Dry.....	a 16
German Salami, Dry.....	a 15
Holsteiner.....	a 11
Mattwurst.....	a 11 1/2
Farmer.....	a 12
Danish, H. C., New.....	a 18
Italian Salami, New.....	a 18
Monarque Cervelat.....	a 13

Sausage in Oil.

Smoked Pork, 1-50.....	3.75
2-50.....	3.25
Bologna, 1-50.....	2.75
2-50.....	2.25
Viennas, 1-50.....	4.25
2-50.....	3.75

Sausage in Brine.

Fresh Pork Link.....	a 8
Liver Sausage.....	a 7
Blood Sausage.....	a 7
Head, beco.....	a 7
Bologna.....	a 6 1/2
Vienna.....	a 6 1/2

VINEGAR PICKLED GOODS.

Pickled Pigs Feet, in 200 lb. barrels.....	\$ 7.50
Pickled Plain Tripe, in 200 lb. barrels.....	4.50
Pickled H. C. Tripe, in 200 lb. barrels.....	7.75
Pickled Ox Lips, in 200 lb. barrels.....	11.00
Pickled Figs Snouts in 200 lb. barrels.....	12.00
Lamb Tongue, Short Cut, bbls.....	36.00

CORNED, BOILED AND ROAST BEEF.

		Per doz.
1 lb., 2 doz. to case.....		\$1.30
2 lb., 1 or 2 doz. to case.....		2.40
4 lb., 1 doz. to case.....		4.85
6 lb., 1 doz. to case.....		8.00
14 lb., 1/2 doz. to case.....		18.00

EXTRACT OF BEEF.

		Per doz.
1 oz. jars 1 dozen in box.....		\$2.25
2 oz. jars 1 dozen in box.....		3.55
4 oz. jars 1 dozen in box.....		6.50
8 oz. jars 1 dozen in box.....		11.00
6 oz. jars 1 dozen in box.....		22.00
2, 5 and 10 lb. tins.....		\$1.75 per lb

BARRELED BEEF AND PORK.

		Per bbl.
Extra Plate Beef.....		\$ 9.00
Plate Beef.....		8.50
Extra Mess Beef.....		8.50
Prime Mess Beef.....		9.00
Beef Heads.....		20.00
Rump Butts.....		9.50
Clear Fat Backs.....		11.75
Family Back Pork.....		15.00
Bean Pork.....		12.50

LARD.

Pure leaf, kettle rendered, per lb., tes.....	9 1/2
Lard substitute, tes.....	6 1/2
Lard compound.....	6 1/2
Barrels.....	1/2 c. over tes.
Half barrels.....	1/2 c. over tes.
Tubs, from 10 to 80 lb.....	1/2 c. to 1 c. over tes.
Cooking Oil, per gal.....	\$34 c.

BUTTERINE.

F. O. B. CHICAGO.

No. 1, natural color.....	@ 10
No. 2.....	@ 11 1/2
No. 3.....	@ 12
No. 4.....	@ 13
No. 5.....	@ 14
No. 6.....	@ 15

DRY SALT MEATS.

Clear Bellies, 14/16 average.....	@ 9 1/2
Rib Bellies.....	@ 8 1/2
Fat Backs.....	@ 6 1/2
Regular Pinets.....	@ 6 1/2
Short Clears.....	@ 8 1/2

WHOLESALE SMOKED MEATS.

Hams, 12 lbs. average.....	@ 11
" 14.....	@ 10 1/2
" 16.....	@ 10 1/2
Skinned Hams.....	@ 8
Casals, 6/7 lbs. average.....	@ 8 1/2
8/12.....	@ 8 1/2
Breakfast Bacon, fancy.....	@ 18 1/2
Wine, 8/10 average, and Strip, 4/5 average.....	@ 12 1/2
10/12.....	@ 12 1/2
12/14.....	@ 11 1/2
Dried Beef Sets.....	@ 18
" Knuckles.....	@ 16 1/2
" Outsides.....	@ 12
Regular Boiled Hams.....	@ 16 1/2
Smoked.....	@ 17
Boiled Picnic Hams.....	@ 12 1/2
Cooked Loins Rolls.....	@ 18 1/2

SAUSAGE CASINGS.

F. O. B. Chicago.

Rounds, per set.....	12
Middles.....	23
Beef bungs, per piece.....	23 @ 24
Hog casings, as packed.....	23 @ 24
free of salt.....	42
" middles.....	10 @ 12
" bungs export.....	6 @ 7
" mediums, each.....	4
" primes.....	2
" narrows.....	2
Imported sheep casings, wide.....	70
" medium white.....	50 @ 60
" medium.....	50 @ 60
" narrow.....	50 @ 60
Beef weasands, No. 1.....	54
Beef bladders, medium.....	16 @ 8
Beef bladders, small, per doz.....	4

FERTILIZERS.

Dried blood, per unit.....	@ 2.55
Hoof meal, per unit.....	@ 2.40
Concent. tankage, 15% per unit.....	@ 2.35
Ground tankage, 12%.....	2.35 @ 10 c.
Ground tankage, 11% per unit.....	2.35 @ 10 c.
Ground tankage, 10% per unit.....	2.35 @ 10 c.
Ground tankage, 9 and 3/4% ton.....	2.35 @ 10 c.
Ground tankage, 6 and 3/4% ton.....	17.00
Ground raw bone, per ton.....	@ 35.00
Ground steam bone, per ton.....	18.00
Unground tankage, per ton less than ground, 50c.....	

HORNS, HOOFS AND BONES.

Horns, No. 1, 65 to 70 lb., avg. ton.....	\$275.00
Horns, striped, per ton.....	25.00
Horns, white, per ton.....	30.00
Flat Shin Bones, 35 to 40 lb., avg. ton.....	45.00
Round Shin Bones, 35 to 40 lb., avg. ton.....	45.00
Round Shin Bones, 50 to 55 lb., avg. ton.....	62.50
Long Thigh Bones, 50 to 55 lb., avg. ton.....	95.00
Jaws, skulls and knuckles, per ton.....	24.50

LARDS.

Prime steam, cash.....	7.22 1/2
Prime steam, loose.....	7.02 1/2
Neutral.....	6 1/2 @ 7
Compound.....	6 1/2 @ 7
Leaf.....	6 1/2 @ 7

STEARINES.

Lard.....	6 1/2 @ 7
Oleo.....	6 1/2 @ 7
Mutton.....	6 1/2 @ 7
Tallow.....	6 1/2 @ 7
Grease.....	6 1/2 @ 7

OILS.

Lard Oil, extra winter strained tes.....	@ 3 1/2
Lard Oil, No. 1.....	@ 3 1/2
Lard Oil, No. 2.....	@ 3 1/2
Oleo Oil, extra.....	@ 3 1/2
Oleo Oil, No. 2.....	@ 3 1/2
Neatfoot Oil, pure tes.....	@ 3 1/2
Tallow, prime.....	@ 3 1/2

TALLOW.

Edible.....	@ 5 1/2
Packers' prime.....	5 @ 5 1/2
Prime Country.....	4 1/2 @ 5 1/2
Packers No. 1.....	4 1/2 @ 5 1/2
City Renderers.....	4 1/2 @ 5 1/2
Packers No. 2.....	3 1/2 @ 5 1/2

GREASES.

White, Choice.....	@ 4 1/2
"A.....	@ 4 1/2
"B.....	@ 4 1/2
Bone.....	@ 3 1/2
House.....	@ 3 1/2
Yellow.....	@ 3 1/2
Brown.....	@ 3 1/2

COTTONSEED OILS.

P. S. Y. in bbls.....	20 1/2 @ 29
P. S. Y. in tanks.....	27 @ 27 1/2
Prime Crude, in tanks.....	23 @ 25 1/2
Butteroil, in bbls.....	31 @ 32

COOPERAGE.

Tierces.....	1.35 @ 1.37 1/2
Barrels, Oak.....	1.05 @ 1.07 1/2
Ash.....	96 @ 97 1/2

CURING MATERIALS.

Refined saltpetre.....	44 @ 5 1/2
Boric acid, crystal to powdered.....	10 @ 11
Borax.....	7 1/2 @ 8
Sugar.....	
Pure, open kettle.....	@ 4
White, clarified.....	@ 4 1/2
Plantation, granulated.....	@ 5 1/2
Yellow, clarified.....	@ 4 1/2
Salt.....	
Ashton, in bags, 25 lb.....	30.00
Eng. packing, in bags, 25 lb.....	1.45
Michigan, medium, car lots, per ton.....	8.60
Michigan, granulated, car lots, per ton.....	2.35
Casting salt, bbls., 250 lb., 2X and 3X.....	1.00

NEW YORK CITY

LIVE CATTLE.

Good to choice native sides.....	\$5.10 @ \$5.75
Medium to fair native steers.....	4.15 @ 5.00
Poor to ordinary native steers.....	3.25 @ 4.00
Oxen and stags.....	2.00 @ 4.40
Bulls and dry cows.....	1.25 @ 3.35
Good to choice native steers one year ago	5.10 @ 5.20

LIVE CALVES.

Live veal calves, prime, per 100 lbs.....	\$8.50 @ \$8.75
Live veal calves, fair to good, per 100 lbs	7.25 @ 8.25
Live veal calves, com. to med., 100 lbs.	5.00 @ 7.00
Live calves, western, per 100 lbs.....	
Live calves, buttermilks and grassers...	3.00 @ 3.50

LIVE SHEEP AND LAMBS.

Live lambs, prime, per 100 lbs.....	\$5.85 @ \$6.37
Live lambs, common to good.....	5.00 @ 5.75
Live sheep, prime, per 100 lbs.....	4.00 @ 4.25
Live sheep, common to good, 100 lbs...	2.50 @ 3.50

LIVE HOGS.

Hogs, heavy weights (per 100 lbs.).....	6.50 @ 6.60
Hogs, medium.....	@ 6.00
Hogs, light to medium.....	6.65 @ 6.70
Pigs.....	@ 6.70
Roughs.....	5.50 @ 5.70

DRESSED BEEF.

CITY DRESSED.	
Choice native, heavy.....	9 @ 9 1/4
Choice native, light.....	8 1/4 @ 9
Common to fair, native.....	7 @ 8

WESTERN DRESSED BEEF.

Choice native, heavy.....	9 @ 9 1/4
Choice native, light.....	8 1/4 @ 9
Native, com. to fair.....	8 @ 8 1/4
Choice Western, heavy.....	7 @ 7 1/4
Choice Western, light.....	6 @ 7
Common to fair, Texas.....	5 @ 6 1/4
Good to choice heifers.....	7 @ 8
Common to fair heifers.....	5 @ 6
Choice cows.....	6 @ 6 1/4
Common to fair cows.....	4 1/4 @ 5 1/4
Good to choice oxen and stags.....	6 1/4 @ 7 1/4
Common to fair oxen and stags.....	5 1/2 @ 6
Fleshy Bosoma bulls.....	4 1/4 @ 5
From pork loins, Western.....	@ 13

DRESSED CALVES.

Veals, city dressed, prime, per lb.....	13 @ 13 1/4
Veals, good to choice, per lb.....	12 @ 12 1/4
Calves, country dressed, prime, per lb.....	@ 11
Calves, country dressed, fair to good.....	8 @ 9
Calves, country dressed, common.....	7 @ 7 1/4

DRESSED HOGS.

Pigs.....	9 1/2 @ 9 1/4
Hogs, heavy.....	@ 7 1/4
Hogs, 180 lb.....	@ 8 1/4
Hogs, 160 lb.....	@ 8 1/4
Hogs, 140 lb.....	@ 8 1/4

DRESSED SHEEP AND LAMBS.

Spring Lambs, choice.....per lb	@ 10 1/4
Spring Lambs, good.....	9 @ 10
Spring Lambs, culms.....	7 1/4 @ 8
Sheep, choice.....	@ 7
Sheep, medium to good.....	6 @ 6 1/4
Sheep, culms.....	@ 5

PROVISIONS.

(Jobbing Trade)

Smoked hams, 10 lb average.....	@ 12
Smoked hams, 12 to 14 lb average.....	@ 11 1/4
Smoked hams, heavy.....	@ 11 1/4
California hams, smoked, light.....	@ 9
California hams, smoked, heavy.....	@ 9
Smoked shoulders.....	@ 9 1/4
Smoked bacon, boneless.....	@ 13 1/4
Smoked bacon (rib in).....	@ 13 1/4
Dried beef sets.....	@ 15
Smoked beef tongues, per lb.....	@ 18
Pickled bellies, heavy.....	@ 11

BONES, HOOFS AND HORNS.

Round shin bones, av. 50-60 lb cut, per 100 bones,	per 2,000 lb..... \$55.00 @ \$60.00
Flat shin bones, av. 40-45 lb cut, per 100 bones,	per 2,000 lb..... \$13.00 @ 45.00
Thigh bones, av. 90-95 lb cut, per 100 bones,	per 2,000 lb..... 75.00
Horns, per ton.....	15.00 @ 25.00
Horns, 7 1/2 oz. and over, steams, first quality.....	@ 3.00

BUTCHERS' SUNDRIES.

Fresh steer tongues.....	75c to 90c a piece
Fresh Cow Tongues.....	35c to 50c a piece
Calves' head, scalded.....	30c to 40c a piece
Sweet breads, veal.....	25c to 75c a pair
Sweet breads, beef.....	18c to 25c a lb
Calves' liver.....	25c to 60c a piece
Beef kidneys.....	7c to 12c a piece
Mutton kidneys.....	1 1/4c to 3c a piece
Livers, beef.....	4c to 5c a lb
Oxtails.....	5c to 7c a piece
Hearts, beef.....	8c to 12c a piece
Rolls, beef.....	10c to 12c a lb
Tenderloin beef, Western.....	15c to 25c a lb
Lamb's trim.....	6c to 10c a pair
Fresh pork loins, city.....	14 @ 14 1/4
Fresh pork loins, Western.....	13 @ 13 1/4

BUTCHERS' FAT.

Ordinary shop fat.....	2 1/4 @ 3
Suet, fresh and heavy.....	4 @ 5
Shop bones, per cwt.....	@ 25

SAUSAGE CASINGS.

Sheep, imp., wide, per bundle.....	80
Sheep, imp., wide, per keg, 50 bundles.....	\$40.00
Sheep, imp., medium, per bundle.....	60
Sheep, imp., per bundle, narrow.....	44
Sheep, imp., Russian Rings.....	
Hog, American, in tea or bbls., per lb, F.O.S.	42
Hog, American, kegs, per lb, F. O. S.....	42
Beef, rounds, per set, f. o. b. Chicago.....	12
Beef, rounds, per set f. o. b. N. Y.....	13
Beef, rounds, per lb.....	3
Beef, bungs, piece, f. o. b. N. Y.....	6 1/4
Beef, bungs, per lb.....	5
Beef, middles, per set, f. o. b. Chicago.....	35
Beef, middles, per set, f. o. b. N. Y.....	37
Beef, middles, per lb.....	6 1/4
Beef wessands, per 1,000, No. 1's.....	@ 5 1/4
Beef wessands, per 1,000, No. 2's.....	3 1/4 @ 3

SPICES.

	Whole.	Ground
Pepper, Sing., white.....	19	20
Pepper, Sing., black.....	14	15
Pepper, Penang, white.....		
Pepper, red, Zanzibar.....	14	13
Pepper, shot.....	14	
Allspice.....	7	8 1/4
Coriander.....	8	9
Cloves.....	17	20
Mace.....	30	35

SALTPETRE.

Crude.....	3 1/4 @ 3 1/4
Refined—Granulated.....	4 1/4 @ 4 1/4
Crystals.....	4 1/4 @ 5 1/4
Powdered.....	4 1/4 @ 5

GREEN CALFSKINS.

No. 1 skins.....	\$.10
No. 2 skins.....	.14
No. 1 B. M. skins.....	.14
No. 2 B. M. skins.....	.12
No. 1, 12 1/4-14.....	1.70
No. 2, 12 1/4-14.....	1.50
No. 1 B. M., 12 1/4-14.....	1.50
No. 2 B. M., 12 1/4-14.....	1.30
No. 1 kips, 14-18.....	1.90
No. 2 kips, 14-18.....	1.70
No. 1 B. M. kips.....	1.70
No. 2 B. M. kips.....	1.50
No. 1 heavy kips, 18 and over.....	2.25
No. 2 heavy kips, 18 and over.....	2.00
Branded skins.....	.09
Branded kips.....	1.00
Heavy Branded kips.....	1.20
Ticky skins.....	.10
Ticky kips.....	1.40
Heavy Ticky kips.....	1.65
No. 3 skins.....	.10

DRESSED POULTRY.

FRESH KILLED—ICED.

Spring Turkeys—Hens, dry-picked, plump	
breasted, 3 to 4 lb. each, per lb.....	@ 25
Toms, dry-picked, fancy, 6 to 7 lbs. each.....	@ 23
Dry-picked, average best run.....	@ 18
Turkeys—Old.....	@ 16
Spring Chickens—Phils., 7 @ 8 lbs. to pair,	
per lb.....	22 @ 24
Phils., mixed sizes, per lb.....	@ 20
Pa., 6 @ 8 lbs. to pair, fancy, per lb.....	@ 18
Pa., mixed sizes.....	@ 15
Pa., 5 lbs. and under to pair, per lb.....	@ 13
Western, dry-picked, large roasters and	
small broilers, per lb.....	14 @ 14 1/4

Western, dry-picked, average best, per lb.	12 1/4 @ 13 1/4
Ohio and Michigan, scalded, fancy.....	14 @ 14 1/4
Ohio and Mich., scalded, average run.....	12 1/4 @ 13
Other Western, scalded, large, av. best.....	13 @ 14
Western, scalded, 5 lbs and under to pair,	
per lb.....	11 1/4 @ 12 1/4
Southern and southwestern, dry-picked.....	11 1/4 @ 12 1/4
Southern and southwestern, scalded.....	11 1/4 @ 12 1/4
Fowls—Western, dry-picked, average best.....	13 1/4 @
Ohio & Mich., scalded, per lb.....	13 1/4 @
Other Western, scalded, average best.....	@ 13 1/4
Southern & southwestern, dry-picked, av-	
erage best.....	@ 13 1/4
Southern & southwestern, scalded, av-	
erage best.....	13 @ 13 1/4
Western & Southern fowls and chickens,	
poor to fair.....	8 @ 11
Old cucks, per lb.....	9 @ 9 1/4
Spring Ducks—Long Island.....	@ 18
Eastern.....	17 1/4 @ 18
Jersey, Pa. & Virginia, fancy.....	17 1/4 @ 18
Jersey, Pa. & Virginia, fair to good.....	15 @ 17
Western.....	10 @ 13
Spring Geese—Eastern, white.....	16 @ 17
Eastern, dark.....	14 @ 15
Squabs—Prime, large, white, per dozen.....	@ 2.75
Mixed, per dozen.....	2.25 @ 2.37
Dark, per dozen.....	1.75 @ 2.00

LIVE POULTRY.

Spring chickens, nearby & Western, per lb.....	@ 13 1/4
Southern & Southwestern, per lb.....	@ 13
Fowls—per lb.....	@ 14
Roosters—Old per lb.....	@ 10
Turkeys, per lb.....	13 @ 14
Ducks, Western, average, per pair.....	70 @ 80
Southern, average, per pair.....	50 @ 65
Geese, Western, average, per pair.....	1.2 @ 1.50
Southern, average, per pair.....	1.12 @ 1.25
Live Pigeons, per pair.....	@ 15

GAME.

English snipe, per doz.....	2.00 @ 2.50
Plover, Golden, per doz.....	2.25 @ 2.75
Plover, Grass, per doz.....	1.50 @ 2.50
Woodcock, per pair.....	1.00 @ 1.50
Partridges, per pair.....	2.00 @ 2.50
Grouse, per pair.....	2.50 @ 3.00
Wild ducks, Canvas, per pair.....	1.00 @ 3.00
Wild ducks, Red-head, per pair.....	1.00 @ 2.00
Wild ducks, Mallard, per pair.....	75 @ 1.25
Wild ducks, Ruddy, per pair.....	75 @ 1.00
Wild ducks, Teal, blue-wing, per pair.....	40 @ 60
Wild ducks, Teal, green-wing, per pair.....	35 @ 50
Wild ducks, common, per pair.....	25 @ 40
Venison, saddle, fresh, per lb.....	25 @ 30
Venison, saddles, frozen, per lb.....	20 @ 25
Venison, whole deer, frozen, per lb.....	18 @ 20
Rabbits, Cotton-tail, per pair.....	30 @ 35

FERTILIZER MARKETS.

BASIS, NEW YORK DELIVERY.

Bone meal, steamed, per ton.....	\$22.00 @ 23.00
Bone meal, raw, per ton.....	25.00 @ 25.50
Nitrate of soda—future.....	2.25 @ 2.27
Nitrate of soda, spot.....	2.25 @ 2.27
Bone black, spot, per ton.....	13.50 @ ch
Dried blood, N. Y., 12-13 per cent am-	
monia.....	2.55 @ 2.90
Dried blood, West. high grade, fine	
ground, c. f., N. Y.....	2.75 @ 2.90
Tankage, 9 and 20 p. c., f. o. b. Chicago.....	21.00 @ 22.00
Tankage, 8 and 20 p. c., f. o. b. Chicago.....	18.00 @ 19.00
Tankage, 7 and 30 p. c., f. o. b. Chicago.....	15.00 @ 16.00
Tankage, 6 and 35 p. c., f. o. b. Chicago.....	15.00 @ 16.00
Garbage tankage, f. o. b. New York.....	8.00 @ 9.00
Fish scrap, dried, 11 p. c. ammonia and 15	
p. c. bone phosphate.....	30.00 @ 31.00
Wet, acidulated, 6 p. c. ammonia, per ton.....	14.00 @ 15.00
Azotone, per unit, del. New York.....	2.60 @ 2.65
Sulphate ammonia gas, for shipment, per	
100 lbs.....	3.00 @ 3.05
Sulphate ammonia gas, per 100 lbs. spot.....	2.97 1/4 @ 3.00
Sulphate ammonia bone, per 100 lbs.....	3.00 @ 3.05
So. Carolina phosphate rock, ground, per	
2,000 lbs., f. o. b. Charleston.....	6.50 @ 7.75
So. Carolina phosphate rock, undried, f. o.	
b. Ashley River, per 2,400 lbs.....	3.50 @ 3.75
The same, dried.....	3.75 @ 4.00

POTASHES, ACCORDING TO QUANTITY.

Kalbit, shipment, per 2,240 lbs.....	\$8.95 @ 9.50
Kalbit, ex-store, in bulk.....	9.00 @ 10.00
Kieserit, future shipment.....	7.00 @ 7.25
Muriate potash, 80 p. c., ex-store.....	1.85 @ 1.95
Muriate potash, 80 p. c., future shipment	
Double manure salt (45 @ 49 p. c., less than	
2 1/4 p. c. chloride), to arrive, per lb.	
(basis 48 p. c.).....	1.09 @ 1.12
Sulphate potash, to arrive (basis 90 p. c.).....	2.25 @ 2.30
Sylvinit, 24 to 36 p. c., per unit, S. F.....	@ 2

LIVE STOCK REVIEWS

KANSAS CITY

(Special to The National Provisioner.)

Kansas City, Mo., October 14.

CATTLE.—Receipts this week were 89,300; last week 64,500; same week last year, 81,900. Cattle receipts here this week are the heaviest on record, but the market has been able to take care of them without any net loss, except on light-weight horned Western grass steers and some poor kinds of stockers. Prices on everything were lower the first two days of the week, but the loss has been recovered since. Best beef steers are \$6, but choice ones would bring a little more. Grass Western steers have sold up to \$4.40 this week, and grass natives \$4.50; grass cows, \$2.50 to \$3 for most of the stuff. Veal calves are 50 cents higher; best ones are \$6. Quarantine steers are unchanged; cows, strong; feeders, steady.

HOGS.—Receipts this week were 39,700; last week 39,500; same week last year 27,500. Hogs have suffered the biggest decline of the season this week. Every day in the last eight, except yesterday, has registered a decline, and the loss this week is from 30 to 60 cents. The loss is on good medium and heavy weights and most on poor quality. Lights and pigs fair to good; 220-lb. hogs bring around \$5.25; best heavies, \$5.50; and a few sales of lights are under \$5. Quality is better this week than last.

SHEEP.—Receipts this week were 36,200; last week 40,700; same week last year 32,900. The liberal sheep run this week has been well distributed throughout the week and prices on both sheep and lambs are 5 to 15 cents higher than a week ago. The gain applies to feeding stock as well as killing kinds. Good to choice Western lambs bring \$5 to \$5.25; yearlings, \$3.70 to \$4; wethers, \$3.30 to \$3.75; and fat ewes \$3 to \$3.30.

HIDES are strong. Green salted, 8¼c.; side brands, over 40 lbs., 8¼c.; bulls and stags, 7¼c.; uncured, 1c. less; glue, 4½c.

Packers' purchases this week:

	Cattle.	Hogs.	Sheep.
Armour	10,911	15,853	7,751
Cudahy	6,377	6,859	1,705
Fowler	1,323	73	908
Ruddy	503	.....	56
Schwarzhild	6,187	5,603	4,059
Swift	9,161	10,648	4,636

ST. JOSEPH.

(Special to The National Provisioner.)

South St. Joseph, Mo., Oct. 11.

Receipts of cattle last week, 14,747; previous week, 19,406; year ago, 14,749. Good to choice beefs were sharply competed for this week and prices held firm with the 10 to 15c. advance scored last week, with Nebraska grades, while well finished only good qualities, going at \$5.80. Common and medium grades and grassers sold steady. Western rangers held their own, and Texans advanced 10 to 15c. Cows and heifers were in urgent request and values held firm. Good quality natives and dehorned Western feeders sold strong to 10c. higher, and plainish kinds, horned Western and light weight cattle, lost 10 to 15c.

Supplies of hogs last week, 29,917; preceding week, 25,769; year ago, 19,379. Since the close of last week packers have been pounding the market, they to-day taking off 10c. The range of prices was from \$5.50 to \$5.75, with the bulk of sales at \$5.60 to \$5.70.

Arrivals in the sheep department last week, 20,724; former week, 47,029; year ago, 17,604. The course of the market for both sheep and lambs in desirable flesh continues a very satisfactory one, as all of the buyers are sharp competitors for such kinds, and

prices for mutton grades show an advancement of 10 to 15c. within ten days and good lambs are fully steady. However, light and medium weight lambs lost 10c. Feeding sheep broke 10c., and lambs lost 15 to 25c.

CHICAGO

(Special to The National Provisioner.)

Chicago, Oct. 13.

CATTLE.—Receipts to-day were 11,000, including 2,500 Westerns and 200 Texans; market was strong; bulls weak. Good to prime steers, \$5.80@6.80; poor to medium, \$3.50@5.60; stockers and feeders, \$2.25@4; cows, \$1.50@4.20; heifers, \$2@5; canners, \$1.50@2.40; bulls, \$2@4.35; calves, \$3@7; Texas fed steers, \$3.75@5.50; Western steers, \$3@5.25.

HOGS.—Receipts, 21,000; to-morrow, 17,000; market 10c. lower. Mixed and butchers, \$5.15@5.80; good to choice heavy, \$5.50@5.80; rough heavy, \$5@5.35; light, \$5.15@5.65; bulk of sales, \$5.40@5.60.

SHEEP.—Receipts, 22,000; market strong; lambs weak. Good to choice wethers, \$3.50@4.25; fair to choice mixed, \$3.25@3.75; native lambs, \$4.25@5.90.

OMAHA.

(Special to The National Provisioner.)

South Omaha, Oct. 12.

The most noteworthy feature about the cattle market for some time past has been the comparative smallness of supplies. Dealers have all been disappointed at the size of the receipts for the past two weeks, and the conviction is beginning to dawn on the trade that there is to be no big run of cattle this fall. At the five Western markets there has been a decrease of over 400,000 cattle so far this year, and it is generally believed that this loss will be even greater before the end of the year.

Prices have held firm for some time. Corn-fed beefs are selling up to \$6 or better, and grass beefs as high as \$4.65. Cows and heifers are bringing 25@40c. more than ten days ago, and in good demand at that. There has been considerable improvement in the demand for feeding steers of late and an advance of fully 25c. in prices has apparently not checked this demand to any great extent. Fair to pretty good feeders are selling largely around \$3.25@3.65.

Prices for hogs have been steadily declining for some time, despite the very moderate offerings. Packers are evidently determined to force prices to a lower level before the heavy winter run begins, and in this they have met with considerable success. They are apparently paying little attention to either quality or weight, the main idea everywhere being simply to get the market down. As a result of this bear campaign values are right around 30@35c. lower than a week ago, and the lowest so far this season. To-day the top was \$5.40, and the bulk of the hogs sold at \$5.30@5.35, as against \$5.25@5.80 a week ago. Indications now are that there will be no excessive run of hogs this winter.

Sheep receipts continue very heavy, but with no let up in the demand from packers and feeder buyers. Prices, as a rule, have been well sustained, and average up about the same as a week ago. Packers are all after the good fat stuff, both muttons and lambs, and anything of this kind sells readily and well. The demand for feeder sheep and lambs, however, is the best it has ever been here, and as a consequence the heavy supplies have been cleaned up completely every day, and a good share of the time the supply has not been equal to the requirements of buy-

ers. Prices have not shown any material change for some time past, and the tone of the market is very strong for decent offerings of all kinds.

RECEIPTS AT CENTRES

SATURDAY, OCTOBER 8.

	Cattle.	Hogs.	Sheep.
Chicago	600	9,000	4,000
Kansas City	100	3,000	200
Omaha	175	3,600	5,000

MONDAY, OCTOBER 10.

Chicago	31,000	25,000	45,000
Kansas City	21,000	4,000	8,000
Omaha	5,100	3,000	22,000

TUESDAY, OCTOBER 11.

Chicago	14,000	16,000	15,000
Kansas City	25,000	11,000	10,000
Omaha	6,000	6,000	15,000

WEDNESDAY, OCTOBER 12.

Chicago	17,000	25,000	10,000
Kansas City	10,000	9,000	8,000
Omaha	6,200	5,700	6,300

THURSDAY, OCTOBER 13.

Chicago	11,000	21,000	22,000
Kansas City	9,000	8,000	3,000
Omaha	5,300	6,300	6,300
St. Louis	4,000	5,000	1,000

FRIDAY, OCTOBER 14.

Chicago	6,000	20,000	10,000
Kansas City	4,000	5,000	2,000
Omaha	3,200	4,200	5,200

CATTLE SLAUGHTERED.

Special reports to The National Provisioner show the number of cattle slaughtered at the following centers for the week ending October 8:

Chicago	43,621
Omaha	13,948
St. Joseph	14,853
Cudahy	391
Sioux City	1,629
South St. Paul	4,054
Louisville	1,170
New York and Jersey City	9,606
Fort Worth	8,756
Detroit	1,178
Buffalo	10,700
Denver	796

HOGS SLAUGHTERED.

Special reports to The National Provisioner show the number of hogs slaughtered at the following centers for the week ending October 8:

Chicago	78,463
Omaha	29,726
St. Joseph	29,918
Cudahy	4,854
Sioux City	6,016
Ottumwa	12,000
Cleveland	11,850
Cedar Rapids	4,105
Bloomington	1,321
South St. Paul	13,062
Indianapolis	20,794
Louisville	7,600
New York and Jersey City	30,322
Fort Worth	7,615
Detroit	4,743
Buffalo	34,850
Denver	2,733

SHEEP SLAUGHTERED.

Special reports to The National Provisioner show the number of sheep slaughtered at the following centers for the week ending October 8:

Chicago	67,863
Omaha	22,533
St. Joseph	20,724
Cudahy	316
Sioux City	684
South St. Paul	2,813
New York and Jersey City	33,764
Fort Worth	792
Detroit	2,918
Buffalo	48,300
Denver	3,392

NEW YORK LIVESTOCK

WEEKLY RECEIPTS TO OCTOBER 10, 1904.

	Bees.	Cows.	Calves.	Sheep.	Hogs.
Jersey City	2,794	..	974	23,945	11,239
Sixtieth St.	1,976	61	3,680	11,142	..
Fortieth St. ....	..	..	..	..	16,343
Lehigh Valley ..	5,842	..	..	..	..
Weehawken	981	..	..	1,286	..
Scattering	64	65	..	32	2,740
Totals	11,593	125	4,709	35,075	30,323
Totals this week...	11,108	125	5,282	40,446	32,617

WEEKLY EXPORTS.

	Live Cattle.	Live Sheep.	Qrs. of beef.
Schwarzschild & S., Ss. Georgia.....	445	..	..
Schwarzschild & S., Ss. Minneapolis	375	..	1,614
Schwarzschild & S., Ss. Hindoo.....	100	..	..
Schwarzschild & S., Ss. Philadel'a.	..	..	1,014
J. Shamburg & Son, Ss. Georgia.....	455	1,356	..
J. Shamburg & Son, Ss. Minneapolis	375	..	..
J. Shamburg & Son, Ss. Titian.....	280	..	..
Morris Beef Co., Ss. Georgia.....	..	..	1,800
Morris Beef Co., Ss. Baltic.....	..	..	1,800
Morris Beef Co., Ss. Philadelphia...	..	..	1,000
Armour & Co., Ss. Georgia.....	..	..	1,400
Armour & Co., Ss. Philadelphia...	..	..	1,400
Swift Beef Co., Ss. Baltic.....	..	..	1,100
Cudaby Packing Co., Ss. Campana...	..	..	1,400
Miscellaneous, Ss. Trinidad.....	82	30	..
L. S. Dillenback, Ss. Ulster.....	..	25	..

Total exports.....	2,112	1,311	12,528
Total exports last week.....	2,453	1,440	15,517
Boston exports this week.....	3,236	1,908	6,310
Baltimore exports this week.....	1,134	1,200	..
Philadelphia exports this week.....	1,095	..	1,090
Portland exports this week.....	478	1,402	..
Newport News exports this week.....	1,029	..	..
Montreal exports this week.....	2,200	2,555	..
To London	2,433	1,742	4,714
To Liverpool	6,583	6,413	11,900
To Glasgow	1,409	89	..
To Bristol.....	149	..	..
To Manchester	523	37	..
To Hull	100	..	..
To Southampton .....	..	..	3,414
To Bermuda and West Indies.....	82	55	..
Totals to all ports.....	11,284	8,336	19,928
Totals to all ports last week.....	8,744	7,000	26,606

CHEMICALS AND SOAPMAKERS' SUPPLIES.

74 per cent. caustic soda at \$1.80 to \$1.85 for 60 per cent.
 76 per cent. caustic soda at \$1.85 to \$1.90 for 60 per cent.
 60 per cent. caustic soda at 2c. per lb.
 98 per cent. caustic soda at 3c. per lb. (powdered).
 58 per cent. pure alkali at 90c. to 1c. for 48 per cent.
 48 per cent. carbonate soda ash at \$1.10 per 100 lbs.
 Borax at 8c. per lb.
 Talc at 1 1/4c. per lb.
 Palm oil in casks at 5 1/4c. Barrels 6 1/2c. lb.
 Green olive oil at 56c. to 57c. per gal.
 Yellow olive oil at 55c. per gal.
 Green olive oil foots at 5 1/4c. per lb.
 Ceylon coconut oil at 7 1/2c. per lb.
 Cochiti coconut oil at 7 1/2c. to 7 3/4c. lb.
 Cottonseed oil at 31c. to 32c. per gal.
 Corn oil at 4c. per lb.
 Rosin—M, \$4.70; N, \$4.90; WG, \$5.20; WW, \$5.35 per 280 lbs.

BALTIMORE FERTILIZER MARKET.

(Special Letter to The National Provisioner from Thos. H. White & Co.)

The ammoniate market the past week has been active, with steady inquiry from the South, and a generally increasing inquiry on futures from the East. We quote:

Unground tankage 9 and 20, \$2.15 and 10 per unit f. o. b. Chicago; ground tankage 11 and 15, \$2.25@2.30, and 10 per unit f. o. b. Chicago; ground concentrated tankage \$2.25@2.30 per unit f. o. b. Chicago; ground blood \$2.50 per unit f. o. b. Chicago; hoof meal \$2.30 @2.40 per unit f. o. b. Chicago; crushed tankage 9 and 20 (futures) \$2.60 and 10, \$2.65 and 10 c. a. f. basis Baltimore.

Nitrate of Soda—The market continues steady and quite firm. For both prompt and future deliveries quotations are \$2.27 1/2 @2.30 according to grade and time of delivery.

On sulphate of ammonia we have no report of any change, other than prices already named.

GENERAL MARKETS

LARD IN NEW YORK.

Western steam, \$7.60; city steam, \$7.50, nominal; refined, continent, tcs., \$8; do., South America, tcs., \$8.50; do., kegs, \$9.50; compound, \$6@6.12 1/2.

HOG MARKETS, OCT. 14.

CHICAGO.—Receipts, 20,000; slow; 5@10c. lower; \$4.90@5.70.

KANSAS CITY.—Receipts, 8,000; 5@10c. lower; \$5.05@5.25 1/2.

OMAHA.—Receipts, 4,300; slow; \$5@5.15.

ST. LOUIS.—Lower; \$4.50@5.65.

CLEVELAND.—Receipts, 30 cars; steady; 5c. lower; \$5.50@5.70.

INDIANAPOLIS.—Receipts, 6,000; lower; \$5.20@5.60.

EAST BUFFALO.—Receipts, 5,100; opened 5c. higher; \$5.50@5.85.

LIVERPOOL.

Liverpool, Oct. 14.—(By cable)—Beef, extra India mess, 65s.; pork, prime mess, western, 77s. 6d.; shoulders, 38s. 6d.; hams, s. c., 45s.; bacon, c. c., 49s.; long clear, light, 48s. 6d.; do., heavy, 47s. 6d.; short ribs, 49s.; backs, 42s.; bellies, 49s.; turpentine, 39s. 3d.; rosin, common, 7s. 3d.; lard, prime western, tcs., 38s. 6d.; do., 28-lb. pails, 39s.; cheese, white, 42s. Cheese, colored, 44s.; American steam lard (Hamburg 50 kilos.), 36 3/4 marks; tallow, 23s.; tallow, Australian (London), 27s. 6d.; cottonseed oil (Hull), 16s. 9d.; linseed oil (London), 15s. 8 1/4d.; Calcutta linseed, spot, 33s.; petroleum, refined (London), 5 15-16d.

OLEO AND NEUTRAL LARD.

The oleo oil business during the week under review here and abroad has been light, but so are the stocks of these goods on the other side and with the packers, and the churners in Europe having used up most of what they had on hand are now coming in the market to buy. The strength of the situation results from light stocks, and it is likely that oleo oil will maintain present values.

Neutral lard is lower this week in sympathy with the decline in the lard market, and cotton oil has suffered a decline in New York and looks like being weak for some time to come, in view of the fact that we are likely to have a good cotton crop.

FRIDAY'S CLOSINGS.

Provisions.

Hogs 5@10c. lower; very fair receipts. The products opened weak and slow, with prices soon moderately lower, all around, and was soon further slightly depressed.

Cottonseed Oil.

It must be considered that the mills have been willing to take lower prices for their crude oil, not only from the fact of the larger oil productions, but as well because decidedly profitable and satisfactory prices prevail for

meal, hulls and linters, and that the larger oil production is a necessity more to produce the other products that pay good profits. It would not be contended, of course, that there would be a disposition to sell any of the products at an easy price, except upon compulsion; but as the oil must be sold at the best prices possible for it, there is the disadvantage for it at present in conservative demands except upon a weak trading basis. Further large lots of crude, in tanks, offered in the Southeast at 22 1/2c., with 22c. bid. Additional sales of 22 tanks at 22 1/2c. New York is for the day showing continued weakness; prime yellow October and November, both at 27 1/4 @28 1/4c.; December, 28@28 1/4c.; January, 28 1/4 @28 3/4c.; May, 29@29 1/4c.

Oleo Stearine.

Quiet and easy at 8 1/2c.; nominal in New York.

Tallow.

Weekly contract deliveries of city, hhds., made at 4 1/2c. New York market now dull at 4 1/2c. for city, hhds., and at 5 1/2 @5 1/4c. for edible. At Chicago, since the London sale, efforts to buy at 1/4c. less money; no success, as yet. A good deal held there on speculative account.

PAINT FOR MILLS.

Mill owners appreciate the desirability of having their buildings present a well-kept appearance, but their chief difficulty has been to secure a paint that would not blister and crack in a season or two. To preserve and beautify structural iron, metal surfaces and smoke-stacks, a paint must be used which will not be destroyed by continued exposure to the rust-forming elements, heat of the sun and rain. The expense and annoyance of frequent repainting can be avoided by the use of a coating flake graphite and silica for pigments, and boiled linseed oil for a binder, and a product of this nature is made under the trade name of Dixon's Silica-Graphite Paint.

This product has certain economical features over the ordinary paints, in that the flake graphite is a lubricant, and in its use as a pigment the paint is brushed on with great ease, saving materially in cost of labor and brushes, and gives a covering power of 500 to 600 square feet to the gallon for a good coating. Dixon's colors have given a service of seven years on the iron covered elevator building of the Kentucky Public Elevator Co., Louisville, Ky., eleven years' protection without repainting on the one mile, four track wide steel elevated structure of the Pennsylvania Railroad Co., Jersey City, N. J., and five years on the 150 feet steel smoke-stack of the Columbus-Edison Electric Light Co., Columbus, O. A practical little folder entitled, "Colors and Specifications," illustrated with five different types of steel construction, and containing suggestions for construction and maintenance painting, with the four colors of Dixon's silica-graphite paint, can be secured by addressing the Joseph Dixon Crucible Co., Jersey City, N. J.

SEE PAGE 48

FOR

Business Opportunities

RETAIL SECTION

HOW CARCASS BEEF CUTS.

It isn't every butcher who knows what per cent of a carcass goes into prime meat. Some housewives seem to think that the whole steer is made up of ribs and loins; others think that round steak is about the whole thing, and they do not want the leg end of it at that.

About 25 per cent. of a beef carcass is ribs and loins. Of a 700-lb. carcass that would be 175 lbs. at most. A rush for porterhouse steaks would run the supply out. The normal demand for this cut and for sirloin and flatbone steaks keeps the poor asking for chucks—cuts from the forequarters. This is lucky for the eater, because chucks are more nutritious than porterhouse. About 50 per cent. of the carcass is in the full cut forequarter. That leaves about 100 lbs. for rounds. Nobody wishes bones, and all expect free fat.

BOSSES AND MEN AGREE.

The members of the Butchers' Protective Association of Davenport, Iowa, and the Davenport Butchers' Union have guarded against any differences by renewing their contract, which expired Oct. 1. The relations between the two organizations during the past twelve months have been of the most pleasant kind, and both parties to the contract have been well satisfied with it. The butchers have found the contract system to be the best means of preventing trouble between the employes and employers and the vote sanctioning a renewal of the old agreement was unanimous. The contract provides for working hours for the men from 6 A. M. to 6:30 P. M. only, and on Sundays and holidays from 7:30 to 10 A. M., with no Sunday deliveries during the winter.

REFORM IN HIDE TAKE-OFF.

Buying hides flat puts a premium on bad flaying. If hides are bought from the butcher and small dealer at so much per pound without regard to condition or takeoff, butchers have no incentive to spend the time necessary to produce hides of good pattern and free from cuts and scores. In many in-

stances, incompetent men are permitted to take off hides, as the butcher's time is valuable and he estimates that when sold flat hides will bring as much when taken off by a boy.

From the tanner's point of view, hides should not be damaged, because anything that injures the hide's surface makes the leather of less value. It costs just as much to tan and finish a poor hide as a good hide and hence more money can be made, all other things being equal, if only good hides are tanned.—Hide and Leather.

OPEN SHOP'S TRIUMPH.

The open shop card is now to be found in all but seven of the more important butcher shops in San Francisco, and it would appear that these seven shops will be forced to the wall unless they get into line. It is now conceded that the union shop policy has been hopelessly defeated. The unions brought all this trouble on themselves by trying to dictate to the boss butchers how their business should be run. Now they find that instead of gaining, they have lost ground and are in danger of losing their jobs altogether.

CEMENT FOR BONE.

A very serviceable formula for the preparation of a cement for bone and ivory is the following: Commercial glue is soaked in hot water until thoroughly softened. While still hot, enough of powdered slaked lime is added to form a mass of the consistency of paste. The broken surfaces of the bone or ivory article are carefully cleaned and warmed, when the cement is thinly spread thereon. A tight bandage holds the whole in place for a few days, when the break will be found to be cemented hard and lasting.

Common glue warmed and mixed with finely powdered chalk is a very good cement for metal on wood. Leather on metal is glued by means of a hot glue solution applied on the metal and a hot nut-gall extract to the leather surface. After drying the cement will be found to possess strong adhesive properties.

LOCAL AND PERSONAL.

Henry Sarf has opened a market in Peoria, Ill.

William Dent will open a shop at Clifford, Mich.

Dennis Donohue has opened a market at Media, Pa.

C. W. Russ has opened a market at Canton, N. Y.

Henry Massena will open a market at Ashtabula, O.

William Williamson will start a market at Upland, Pa.

C. T. Snyder has opened a market in Siegersville, Pa.

J. Lutz, of Java, S. D., has sold his shop to H. P. Winkley.

J. C. Ford, of Crawford, Colo., has sold his shop to Ed. Turner.

H. B. Hess, of Enfield, Mass., is building a slaughter house.

James Clark has bought W. R. Smith's shop at Kankakee, Ill.

W. Sutherland has opened a new meat market in Portland, Ore.

P. A. Falkenberg has recently opened a market at Caldwell, Kas.

G. D. Wheeler, of Buffalo, Kas., has sold his shop to A. M. Tuttle.

A. M. Smith has started a market at Elgin, Ill., on Chicago street.

W. L. Goon, of Richmond, Ore., has sold his market to J. C. Shelton.

Work Bros. have refurnished and improved their market at Florence, Pa.

The East St. Louis, Ill., butchers have agreed to close up on Sundays.

RAPID DUPLICATING

pays anybody whose time has commercial value, when 5, 10, 20, 30 and more exact copies of forms, letters, PRICE LISTS, INSTRUCTIONS TO SALES-
MEN, NOTICES TO BRANCHES, ETC., pen or typewritten, are needed.

Practical, indestructible, simple process preferable to Mimeograph, Heliograph—gelatine coated devices.

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TRACKING,
With All Appliances

R. T. RANDALL & CO.
331-333 North Second Street
PHILADELPHIA.

Refer to our ad. on page 11.

John McFarland has purchased the shop of John Amoor at Osborne, Kas.

A. L. Leach has sold his market at Ellsworth, Me., to Morang Brothers.

W. H. Finch, of Plainville, Kas., has sold his butcher shop to C. W. Stuckey.

Stanell & Copas have sold their shop at Jefferson City, Mo., to A. P. France.

C. H. Meckel's market at Atlanta, Ga., was burned recently. Loss, \$5,000.

M. M. Smith has purchased the meat business of Chas. Biffing in Atchison, Kas.

J. A. Sparlin has purchased the butcher shop of Woody & Kirk at Madill, I. T.

Smith Bros. have purchased the meat market of M. F. H. Voss at Clarksville, Ia.

H. & M. A. Modine have sold their meat business at Portland, Ore., to Willock Bros.

J. L. Owen & Co. have sold their meat business in Monroe City, Mo., to R. Spiker.

R. E. Bryant has succeeded to the butcher shop of Bryant & Myer at David City, Neb.

G. R. Church has purchased the meat business of Chas. S. Lee at Westmoreland, Kas.

C. I. Powelson has purchased the retail meat business of A. A. Gaume at Onaga, Kas.

Varner & Roos, retail meat dealers, have been succeeded by E. A. Varner at Waco, Neb.

G. L. Rogers has succeeded to the butcher shop of Deller & Rogers at Pagosa Springs, Colo.

Hill & Atkinson have succeeded Hill & Nicholson in the meat business at Augusta, Ark.

George W. Burns has purchased the meat business of Bingham & Overton at Columbia, Ia.

Oscar R. Nise has been succeeded in the meat business at Moberly, Mo., by Nise & Griffith.

Hagard Bros. have sustained a considerable fire loss in their butcher shop at Manilla, Ark.

Glenn & Rosser have been succeeded in the meat business of Bells, Tex., by Glenn & Ferguson.

Schenzel & Appel have been succeeded in the meat business in Norfolk, Neb., by L. Schenzel.

George Spangler has purchased a half interest in the butcher shop of Isaac Hyre at Clinton, Mo.

Clatworthy Brothers, of Sterling, Ill., have opened the meat department of their new provision store.

Theodore Gautschi, of Liberty, Pa., has bought the shop of Thomas L. Farry at Honesdale, Pa.

W. E. Penrose has succeeded to the market at Lynch, Neb., formerly conducted by Penrose & Smith.

M. C. Lauridsen has opened a market at Sunnyvale, Calif., to be called the Sunnyvale Meat Company.

W. M. Berge & Son have sold their meat and grocery business in Texarkana, Ark., to J. A. Harrington.

The butchers of Moline, Ill., have agreed to sell no meat on Sundays from November 1 to April 1.

B. B. Gordon and Archibald Wilkie, of Lawrence, Mass., have purchased Henry N. Hall's meat business.

E. B. Parker has sold his meat and grocery

business in Leadville, Colo., to the Crews-Beggs Trading Company.

Henry Seaman will open a market in Port Washington, L. I., N. Y. He formerly had a shop at Bayside, L. I.

Phillips, Brown & Geddes, wholesale and retail meat dealers in Baker City, Ore., have sustained a fire loss of \$1,000.

The Retail Grocers' and Butchers' Association of South Bend, Ind., has decided to close all groceries and markets at 6:30 p. m., until April 1, except on Saturdays.

The Retail Meat Dealers' and Grocers' Credit Protective Association of Syracuse, N. Y., has decided to operate a collection agency and credit information bureau, for the benefit of members.

The Western Beef & Provision Company, of Grand Rapids, Mich., has remodeled, painted and decorated its store. Handsome fittings have been installed, making the market unusually attractive and up-to-date.

The Retail Butchers' Association, of Wilmington, Del., entertained the Butchers' Association of Chester, Pa., recently. Games and contests in the afternoon and a dinner in the evening made the occasion a most enjoyable one.

A delegation of butchers from Pennsylvania on their way home from the World's Fair visited the Chicago stock yards recently. H. M. Garners, of Allentown, Pa., was in charge of the party. They said the display of live stock was more interesting to them than the big fair.

The Pacific States Packing Company, of Portland, Ore., is disposing of its retail markets. Recently the management negotiated the sale of the Star Market to Messrs. Schrewe & Green, proprietors of the Metropolitan Market, and the Loraine Market to Mr. S. J. Williford. It is the company's policy to close out all its retail markets as fast as possible, though it did not expect to close them out so quickly, believing it would need them as an established means of disposing of its product.

BUTCHER VS. VETERINARIAN.

Butchers are much stirred up over the attempt to impose a horse doctor upon them as meat inspector at Cleveland, O. The authorities responsible for the appointment insist that an experienced veterinarian is more capable of detecting spoiled meats and diseases in slaughter stock than a butcher. This the butchers indignantly deny. In a recent communication to the Butchers' and Packers' Gazette President James Hoffman, of the Master Butchers of America, says, among other things:

"A well-informed practical butcher has forgotten more than a veterinarian could ever learn through his methods of acquiring experience, and this statement is made without any desire to detract from his knowledge of animals, of which his information is supposed to specially consist. Now, let us be honest. What does the veterinarian know? Dr. A. S. Cooley says a veterinarian can detect germs in meats. Now the question is, who finds the germs, the chemist or the veterinarian? It is the city chemist who makes the analysis, not the veterinarian.

"Now, there is no practical butcher but

that can detect meats that are tainted or affected with lumpy jaw or tuberculosis. Now, why cannot a butcher cause meats to be analyzed by the city chemist just as well as the veterinarian? Does the veterinarian make his own tests? Presume he does in like manner as physicians compound their own prescriptions, by having them filled at the druggists. Let it be understood that it is not my intention to write anything detrimental to veterinarians, but we do contend that they should be confined to their teaching and knowledge.

"The health of the public demands that a man be appointed who is practical and not one full of theory. It is an established fact, as Health Officer Friederich states, that the federal government employs veterinarians as meat inspectors, and he might further have stated that that fact contributed largely to the farcical character of government meat inspection, which is not accepted by Germany. The last national convention of Master Butchers of America condemned the practice of employing veterinarians as meat inspectors, and it was practically shown that many were unfit either from knowledge or experience for such responsible positions. God speed the times when men will be appointed to positions for their worth and competitive merit and not for friendly or political preferment, without regard to their qualifications."

PUTZ POMADE.

A very satisfactory compound claimed to closely resemble the genuine paste sold under the name of Putz pomade, and which will be found convenient in every butcher shop is composed of the following ingredients: Oxalic acid, 1 part; oxide of iron, 25 parts; rottenstone, 20 parts; palm oil, 60 parts, and vaseline, 4 parts. The oxide of iron may be Venetian red. Both it and the rottenstone must be absolutely free from grit. It must not be lost sight of that oxalic acid is a poisonous substance, hence the application of the paste should be made with woolen rags, and sore fingers or wounds not be brought into contact with it. All superfluous paste should be carefully removed from the polished articles, as the former will be found to frequently lodge in the crevices with great persistency. An after polish with finely powdered chalk brightens the lasting quality of the polish.

TAN PASTE FOR BOOTS.

A tan paste for boots may be made from 6 lbs. of beeswax, 2 lbs. lard, ½ lb. neatsfoot oil, 2 lbs. turpentine, ¼ oz. chrysoidine and 5 ozs. methylated spirit. Melt the beeswax, lard and neatsfoot oil on a water bath, then add the turpentine; when well incorporated add the chrysoidine dissolved in the methylated spirit. A white cream may be similarly made by only substituting white wax for the beeswax and omitting the chrysoidine.

WHOLESALE CONDEMNATION OF MEAT.

Seven thousand nine hundred pounds of meat were condemned recently in the Great Market Halls of Vienna, Austria. The cause was traced to insufficient icing of the refrigerator cars during the transit. A total loss of 10,000 kr. faced the exporters, since the entire shipment had to be given up to the authorities for destruction.

